An Address
ON
THE SOIL IN ITS RELATION TO DISEASE AND SANITATION.

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GENTLEMEN,—In dealing with the relation of the earth to disease it behoves us to move with caution, and we shall do well at the outset to admit that there is very little knowledge of the subject which can be regarded as certain. We are in the land of conjectures, surmises, and plausible hypotheses, which perhaps are leading on to certain knowledge, but it will be necessary to check the dicta of the laboratories by experience gained outside of them. Such has always been the admirable custom in this country, where the labours of the pure scientist have been checked by that truly excellent staff of workers, the medical inspectors of the Local Government Board, to whom the world at large is more deeply indebted than perhaps it is aware. Before we blame the earth for causing us harm we must be sure that the facts, or alleged facts, of the bacteriologist are supported by the experience of the practical epidemiologist. Science unchecked by practice will certainly lead us astray in the future as it has done in the past, and just as a "lie which is half a truth is ever the blackest of lies," so a new scientific fact imperfectly understood has potentialities for evil which are unbounded.

If we set aside for the present the question of malaria, which is undoubtedly primarily connected with certain soils, we have very little evidence that any other disease of practical importance is primarily connected with the soil. There appear to be two microbes which are present with tolerable constancy in the upper layers of the soil, which, when applied to a raw surface or injected hypodermically, may cause tetanus and malignant œdema; but as yet we are without any evidence that either of these diseases can be caused by drinking water which has percolated through the soil or can rise as a miasm from the soil. They concern the surgeon mainly, and from the point of view of epidemiology are unimportant.

Phthisis, or rather death from phthisis, which is not quite the same thing, is said to be more prevalent on damp soils than on dry ones, and it has further been said that the death-rate from this disease has been reduced in certain towns by sewerage. This statement is not universally accepted, and even if it be true it does not necessarily inculpate the soil because damp soils are cold, and patients with phthisis or any chronic lung trouble are very intolerant of cold and damp. It is very generally recognised that phthisis is prevalent in proportion to overcrowding, and that it is conveyed by tuberculous milk or meat seems to be certain as the result of recent experimental work. Any charge against the soil itself is as yet not proven.

Diphtheria has been said to be prevalent on certain soils, but this assertion is now discredited, and we recognise that the great cause of its spread is overcrowding. Its habitat, if it have any, outside the human body is not yet known.

Anthrax, which is due to a spore-bearing organism, can certainly be conveyed to animals browsing on grass soiled by the dung or blood of infected animals. The bacilli seem to die in the carcase of a dead animal within three days after death; and as, for spore formation, the free access of air and a temperature of 70° F. are necessary it is not likely that this goes on in the earth. Pasteur's assertion that anthrax spores may be brought to the surface by earthworms is discredited by Koch and others. Man, I believe, has never been infected with anthrax except by direct inoculation or, as in the wool-sorter, by inhaling spores from infected wool or hides. Clearly, animals should not be allowed to browse in an infected field, and such fields should, where possible, be ploughed up and converted from pasture into arable land. The danger of burying animals dead of anthrax is considered unworthy of credence by those eminent veterinary authorities, Professor Brown and Professor McFadyean, and the latter has shown that the process of putrefaction is fatal to the virulence of the tissues of the dead animal when these are inoculated into other animals or administered by the mouth.

Enteric fever and cholera bear a close resemblance to each other in their mode of spread, and they are both recognised in this country as mainly, if not entirely, water-borne diseases. Whether this be absolutely the case in the tropics I will not pause to discuss, because I am ignorant of the conditions of tropical life, but it is known that at present the water-borne theory, as against the air-borne theory, is receiving more and more support in India. That these diseases are produced in most cases by the direct infection of water by the excreta of infected patients is in Europe very generally acknowledged. The cholera epidemics of 1848, 1854, and 1866, and the more recent epidemic at Hamburg, strongly support the water-borne theory of cholera, and the enteric fever epidemics which afford similar evidence in this country have been so numerous that it is unnecessary to particularise. The spread of both these diseases seems to be favoured by conditions of filth and overcrowding, and the existence of a filthy and sodden condition of the soil has been often spoken of in connexion with them. Nevertheless, there have been very few outbreaks of enteric fever in which the fact that cesspools, sewers, or underground middens have been in direct communication with the sources of water has not been detected. If, as seems highly probable, typhoid fever may be conveyed by sewer air there is nothing improbable in the suggestion that it can be conveyed by the air of privies or middens in which fæces are allowed to putrefy. That typhoid fever poison can lurk in properly tilled ground seems very unlikely, and I am not aware that such a thing has ever been suggested. Pettenkofer's statement that epidemics of typhoid fever and cholera follow depressions of the ground water may be true for Munich, but it has not been materially supported in this country; and, in Budapest, Fodor has found that these diseases are more prevalent when the ground water is high. The variations of level in the ground water depend upon such a number of meteorological and other conditions and give rise to so many and different effects that even if Pettenkofer's statement be accepted it would not necessarily point to the earth as the natural habitat of the typhoid fever poison. Professor Lane Notter, in his summing up of this ground-water question, says:[1] "It must, however, be borne in mind that it is not the ground itself which is the cause of the disease, but the impurities in the soil which the varying level of the ground water helps to set in action." Now, no organic impurity can possibly reach the soil from the subsoil, which is purely inorganic. Any organic impurity which reaches the ground water must, therefore, come from above and is due in the vast majority of cases to our mismanagement of organic refuse. Dr. Sims Woodhead[2] says that "*the deeper layers* of the earth are frequently almost entirely free from micro-organisms, *just as is the ground water.*" Of course if the soil of a city be porous, and if there be a subterranean network of sewers interspersed with cesspools, this would (in the high probability that an average proportion of these contrivances leak) constitute a very great danger, but we must not blame the earth because we mismanage it. The earth, be it remembered, is our sole permanent source of wealth, and we must not needlessly quarrel with our bread-and-butter.

This world would not be habitable were it not for the humus with which its bare rocks are clothed. The humus is the living covering of the skeleton, and its formation has taken ages. The primitive bare rock which has been "weathered" by the changing seasons gets clothed with a growth of lichen. This thin but rough covering entangles stray particles, and thus and by its own decay affords a nidus for a stronger growth. This stronger growth, by chemical action and physical force, works further into the rock, on which the soaking rains and rending frosts have an increasing effect, and thus, partly by the disruption of the inorganic rock and partly by the increase in ever-growing quantities of vegetable decay, the humus rises

[1] Parkes' Hygiene, eighth edition, p. 10.
[2] Bacteria and their Products, p. 394. Walter Scott, 1891.

as it were, "on stepping-stones of its dead self" until it is able to afford footing and nourishment for the stately forest tree, and its fertility finally becomes sufficient to attract the attention of the husbandman. This humus, the loose, mainly organic covering of the rocks, is formed, as we have seen, by crumbling rocks from below and by the constant additions of dead organic matter which is deposited upon the surface. These additions of organic matter, be they in the form of dead animals, dead leaves, dung, or what not, become humified, and thus the stock of humus tends steadily to increase. The greater the stock of humus the greater the fertility, and the greater the fertility the greater will be the amount of dead organic matter to increase the stock of humus. The conversion of the dead organic matter into humus is a biological process and is caused by the animals which live in the humus and is perfected by the growth of fungi. On this account I ventured some years ago to speak of the humus as the "Living Earth," and I take it that no more important addition has ever been made to the stock of human knowledge than the recognition that the humus teems with life and that its fertility and healthiness depend entirely upon biological processes. If the humus be sterilised either by heat or antiseptics it becomes absolutely barren. It was at one time supposed that the fertility of the soil depended mainly upon the process of nitrification, whereby nitrogenous organic matter is converted into soluble nitrates which are absorbed by the roots of plants, and there can be no doubt that these nitrifying organisms are most important. The causes of the fertility of the soil are probably far more complex than we suppose, and I think it may be said that we are as yet only upon the threshold of our knowledge with regard to them.

The phenomenon of "symbiosis," or the living together of chlorophyll-bearing plants with those which have no chlorophyll in so-called symbiotic community where each partner works for its fellow's good as well as its own, is far more common than was supposed. Originally demonstrated in so-called lichens, which really consist of symbioses of fungi and algæ, it was next shown in the papilionaceous leguminosæ, whose nourishment appears to be largely dependent upon so-called bacterial nodules which grow upon their roots, and, according to my observations, more upon the superficial roots than those which run more deeply. In Oliver's edition of "Kerner's Natural History of Plants"[3] will be found an account of symbioses between fungi and big flowering plants in which "the division of labour consists in the fungus mycelium providing the green-leaved phanerogam with water and food-stuffs from the ground whilst receiving in return from its partner such organic compounds as have been produced in the green leaves." 'The union of two partners always takes place underground, the absorbent roots of the phanerogam being woven over by the filaments of a mycelium. ..... As the root grows onward the mycelium grows with it, accompanying it like a shadow. ..... The ultimate ramifications of roots of trees 100 years old and the suction roots of year-old seedlings are woven by the mycelial filaments in precisely the same manner." It is stated that many plants only flourish in symbiotic community, and in this fact lies the explanation of the readiness of some plants to grow and flourish from cuttings put in sand, or from seedlings grown in nutritive solutions, while others, in the absence of the necessary fungi encircling their roots, cannot be made to strike root or flourish in this way. When it is stated that to the latter class belong oaks, beeches, firs, willows, poplars, rhododendrons, and heaths the importance of symbiosis in this world will be readily understood. Now we know why it is that the gardener prizes leaf-mould in spite of its being comparatively poor in nitrogen as compared with guano. Leaf-mould is full of fungi, and in it the plant readily establishes its requisite symbiosis.

This great and astounding fact of symbiosis, of which we have only recently had cognisance, will serve to enforce the steadily growing opinion that the sphere of the chemist is in all living processes strictly limited. In estimating the value of artificial manures the chemist's dictum is of the greatest value, but his analysis when used to gauge the value of the living humus may be entirely misleading. The chemist has told us again and again that the quantity of nitrogen in humus and in earth-closet soil is, as compared with many artificial manures, comparatively small, and therefore the mistake has been made of regarding human fæces and the product of earth closets as of small manurial value. I believe that such a statement is most misleading, and on this point I claim to speak with no inconsiderable experience. It is known to many of you that for the past ten years I have cultivated a garden of about an acre and a quarter in extent in which the only manure used has been the excremental and other refuse of some twenty cottages with about 100 inhabitants. In August last I invited a party of the British Medical Association to view that garden, and I think that none of my guests on that occasion will refuse to admit that the garden was as full of crops of one kind and another as a garden could well be. Dr. Voelcker, the chemist of the Royal Agricultural Society, whom I had the honour of numbering among my guests on that occasion, told me that he had never seen a piece of ground more fully stocked, and he very kindly went carefully round the garden with me to see if his experienced eye could detect any sign of sickness in the soil. I have never detected any such signs, and neither could he. The garden affords no evidence of being overdone with manure, and my belief is that it would take a great deal more. This ten years' experience has convinced me that human fæces constitute a manure of the greatest value, all analyses to the contrary notwithstanding. The probable explanation lies in the fact that the microbes extruded with the fæces are of great value in developing the fertility of the humus.

Many recent experiences in sanitation and in medicine force upon us the conclusion that the value of chemical analysis in biological questions is not final. Water which has been found to contain the bacillus of typhoid fever has passed the tests of the chemist, and there can be little doubt that in the past many samples of wholesome water have been condemned for containing the products, in the form of nitrates, of oxidised organic matter. Again, the action of toxines and antitoxins is quite beyond the reach of the chemist, and the marvellous results which have been obtained by administering thyroid extract teach us that in dietetics there is something which the chemist cannot gauge. Raw thyroid and cooked thyroid would give the same results on analysis, but how different is the physiological result! How different is the action of the carefully dried stomach of the calf in the form of rennet or pepsin as compared with a dish of tripe! These facts must force upon us the speculation that the same thing may produce very different effects according to the temperature to which it may have been artificially raised by drying under a vacuum or by cooking, and must drive us to the conclusion that although it may be advisable under certain circumstances to boil our milk or our water, it is possible that the act of cooking may change, we know not to what degree, the physiological action of the milk or water which has been thus treated. My experience tells me that the chemists are wrong when they say that human excreta are of small manurial value. Their analyses are doubtless right, but their conclusions are wrong and very dangerously misleading. In this statement I should be supported by the whole of the "Far Eastern" nations.

The ultimate manurial value of urine is doubtless very great, although when pure or nearly pure it is very deadly to herbage. The only satisfactory way of using urine as a manure is to imitate the farmer by mixing it with an absorbent material such as straw, sawdust, peat, earth, paper, cotton waste, wool waste, &c., placing it upon the surface of the ground and digging or ploughing it in.

The best evidence that the humus is alive is the fact that it breathes. The fungi which are destitute of chlorophyll absorb oxygen and give off carbonic acid, in this respect resembling animals and differing from the chlorophyll-bearing plants. The most easily obtained evidence of this is the fact that decaying refuse generates heat, a fact which is easily ascertained by using a thermometer. Thus I have at present in the garden of my cottage in the Thames Valley a heap of privet leaves intermixed with a quantity of fine twigs which give it great porosity and serve to admit a large quantity of air. On the morning of Oct. 21st the temperature of the air was 39° F., and the temperature of the heap of leaves was 57° (18° more than the air). On Oct. 22nd there was a heavy cold rain with a cold easterly wind. On the morning of Oct. 23rd the temperature of the air was 40° and the temperature of the heap of leaves was 56°. On the night of Oct. 23rd–24th there was (for the time of year) a very severe frost. My heap of leaves on the morning of the 24th was solidified on the surface by the frost, but the temperature of the interior

[3] Vol. i., p. 249.

was 53°, while that of the air was 30° (an increase of 23° over the air). This heap, it should be stated, is only a small heap, and would all go into a big wheelbarrow. On the morning of Oct. 24th, after taking the temperature of this heap, I turned it over with a fork, putting the frozen top in the centre and altering the position of the constituents of the heap. A quarter of an hour later the temperature of the heap was found to be 32°, and at seven in the evening it was still at freezing point, or only just above it. The night of Oct. 24th–25th was again very frosty, as many as 12° of frost having been registered at a house close by. At eight in the morning of the 25th, however, my heap of leaves showed a temperature of 40°, having risen 8° during this very cold night and being 20° above the minimum cold recorded in the night. At 7 P.M. on the 25th the temperature of the heap was 42°, and the next morning, after a third very cold and frosty night, it had risen to 45°. The rise of temperature here was clearly due to the respiration of living things and could not have been in any degree caused by absorption of sun heat. (Since the above was written autumn has come upon us, and the fallen leaves have been collected into a big heap. On Nov. 15th the temperature of this heap was found to be 62° F. and a week later (Nov. 22nd) had risen to 104° F.!) The fact that the humification of organic matter generates heat is a fact which is of enormous practical value to the gardener and farmer. The market gardens round London, which produce astounding crops and assimilate an enormous quantity of dung, are in a sense extended and mild hotbeds. One hopes that those who are advocating the burning of organic refuse will pause to think, however necessary such a process may be under certain circumstances, how great is the dispersion of energy which such a process involves and how much heat is lost which might otherwise be used for the stimulation of germination and growth in seeds and plants. One hopes also that those who would condemn as foul the humus which contains a large amount of carbonic acid will remember that this gas may only be an evidence of perfectly healthy and vigorous action. The important fact that the tillers of the soil are the most long-lived of all the labouring classes is one which must never be lost sight of.

That the humus breathes and generates an enormous quantity of carbonic acid precisely as an animal does is a fact of which the agriculturist must ever bear in mind. Many of the operations of the farm have for their object the loosening of the soil and the admission of air to enable the respiratory processes to go on. Every farmer will tell you that the earlier he can get upon the ground to hoe his turnips the better will be the crop (other things being equal), and every farmer knows the advantage of thorough tillage. If the respiration of the humus is an important fact, it becomes very important indeed not to drown it. It stands drowning no better than a man does, but, like a man, it requires a requisite amount, but not too much, of drink. There can be no doubt that the failure which is almost general of so-called sewage farming arises through the drowning of the humus; and it must be borne in mind that sewage water consists to a very considerable extent of water which has been boiled, or is hard, deep well water, and has not the valuable quality of rain water of containing some 2·5 volumes per cent. of atmospheric air dissolved in it. There can be little doubt that the great trouble to the sewage farmer is the excess of water which drowns the humus. When three or four ounces of excrement are mixed with 1200 times their weight of water they run small chance of humification, and one must fear that the difficulties of the sewage farmer (financial or agricultural, or both) must increase with the magnificence and extravagance of the water-supply of the town the sanitary interests of which the sewage farm is intended to subserve. The evil effects of too much water have come before me lately in two very striking examples. While going over the experimental farm belonging to Mr. H. C. Stephens, M.P., at Cholderton, on Salisbury Plain, this autumn (which I did in company with a large number of practical agriculturists), there were here and there noticeable in the middle of fields having a uniform quality of soil, and which had been treated in identical fashions, certain large patches over which the growth of turnips, as compared with the rest of the fields, was very defective. The explanation offered was that on these patches the animals had been folded in wet weather, that the dung had been trodden into the ground, and the soil had been hardened and consolidated by the trampling of the beasts. Under such conditions (air not being adequately admitted to the pores of the soil) the humification of the dung had been hindered and the crops stunted in consequence. This was a fact new to me, who am only an amateur agriculturist, but I may state that it was unanimously and unreservedly accepted as an adequate explanation by all the farmers present, who seemed to be perfectly familiar with the consequences of folding cattle in the wet. On the other hand, the most fertile patch of the whole farm was where the cattle had been folded for a fortnight continuously on the same spot during the severe frost of last winter, and had been fed upon food which was necessarily brought to them on that spot. The ground being as hard as iron could not be more consolidated by trampling, and with the advent of the thaw there was a general disruption of soil and dung, and humification went on rapidly in earth of which the pores had been opened by the beneficent effects of a deep frost, and which had received an amount of dung which was exceptionally great.

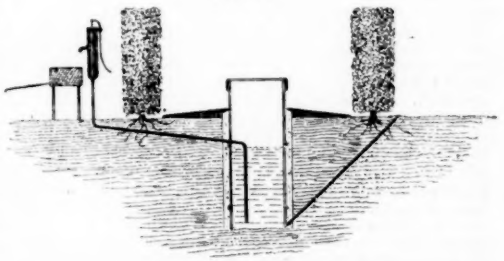
Another experience was a visit to a sewage farm belonging to a town in which brewing is the staple industry. This farm was large (nearly twice as big as at one time was considered necessary) and was composed of a very porous, gravelly soil in a high situation. The manager was an able man, and one felt that if success was to be obtained it was here. But the amount of water pumped on to this ground was exceptionally great, amounting at times to as much as 150 gallons per head of population per diem. The result can be imagined. The humus was drowned, and large tracts of the farm were as wet as a marsh, bore no crops, and never could be made to bear any under such conditions. As soon as it had been saturated it was ploughed up and saturated again, there being no time (let alone other considerations) to grow crops in face of the huge volumes of water which had to be dealt with. Those parts of the farm which were under cultivation grew enormous quantities of water-grass, a noxious weed, and altogether the agricultural aspects of this estate were as gloomy as could well be. As for the effluent, it was thick and turbid, and stunk like a dirty brewery. It was impossible to believe that the effluent had been rendered safe for discharge into a river, and its cost must have approached that of the beer which was sold in the adjoining town. The amount of water seemed to be the trouble here, and clearly the first duty of the municipality would be to divert directly into the river all the storm water and all the water which was used in enormous quantities for refrigerating purposes, and which, being perfectly wholesome, might go into the stream direct. A visit to the pumping-station of this municipality was most unpleasant for the nostrils, and left upon me the impression that the Local Government Board would do well to insist that all sewage committees should have a board-room at the pumping-station and another at the farm, and should be allowed to deliberate in no other place. The humification of excrement in the presence of such an overpowering amount of water is impossible, and I believe that municipalities which are now busy diverting storm water will have to go further and deal with excreta, domestic slop water, and manufacturers' effluents on different and separate systems. I confess I should like to see water-closets dealt with on an independent system by a vacuum principle such as is advocated by Shone and Liernur. Manufacturers' refuse, which is liable to contain chemicals and antiseptics, is so likely to kill the humus by poison as well as by drowning that it seems impossible to deal with it on any one system, and it is to be hoped that with the advance of chemistry it may be increasingly possible to turn manufacturing effluents to profitable account.

It is now more than ten years ago since I first deliberately drew attention to the shortcomings of modern sanitary methods, and pointed out that the safe disposal of organic refuse was a question which mainly concerned the biologist. It is a hopeful sign of the times that engineers are now recognising this fact, thanks mainly to the teaching of the Board of Health in Massachusetts. The purification of sewage is wrought by the presence of living organisms on the filters; and for the due filtration of drinking-water it is now admitted that the filtering material must have a coating of living slime. These are facts which are now all but universally admitted.

It is admitted that humus is one of the best filtering materials for water, and that water from a river full of living organisms is to a large extent freed from them by filtering through a few feet of the humus on its banks. In the past

few years Professor E. Frankland has shown that water of singular microbial purity has been obtained from the gravel beds which in places flank the Thames. Such water, one must suppose, is obtained from ground water which has fallen upon the earth, has filtered through it, and is slowly flowing towards the river. The purifying agent in these cases is mainly, one must suppose, the living humus which lies upon the surface, although the subsoil cannot be without some effect. These facts must alter our attitude towards surface wells, and must teach us what to a great extent has been admitted—that the purity of surface wells must depend more upon the mode of construction and the surroundings of the well than upon its depth. Wells are polluted by foulness which has reached the subsoil without being subjected to the purifying influence of the humus, and there are many facts which go to show that if foul water gets to the under side of the humus without going through it its purification in the subsoil is far from certain. The Lausen epidemic, the Worthing epidemic, and the pollution of the deep well sunk in the sandstone at Liverpool seem to show us that percolation through a mile of underground strata entails no certain purification, and that wells 80 ft. or 400 ft. deep are not safe if fissures allow the contents of cesspools, leaking under pressure, to trickle into them. The almost universal condemnation of surface wells and their frequent pollution are mainly due to the fact that we take our filthy and dangerous liquids through the humus in pipes, and thus ensure at great expense that it cannot be subjected to purification by it. If these underground pipes leak the mischief caused by pollution of wells may be very far-reaching. It is very probable that foul water continuously thrown on the same spot of ground may in time work its way to a well and thus pollute it. Such ground which is constantly soaked, be it remembered, is never tilled, because tillage is impossible. For ground to be tillable it is essential that reasonable breathing time should be allowed. I am not altogether sure (although I hardly dare utter such a heresy) that a properly constructed surface well in a selected situation may not prove to be one of the safest sources for water, because it can be inspected with perfect ease, and the fact of accidental leakage into it would become apparent. In this connexion it may be well to describe in full detail the well which I have sunk in my garden at Andover, a garden which is rather handsomely manured with human excreta. The well is placed in the very centre of the garden at the intersection of two paths—a broad green path and a narrower asphalted path. This situation was chosen for two reasons: (1) that it was as far as possible removed from any accidental pollution from the sewer in the street; and (2) that in the centre of the garden it would theoretically run the greatest chance of fæcal contamination from the manure used. As the well was sunk solely for experimental purposes this was essential. The garden is on a river-bank and very slightly raised above the level of the water. The well is only some 5 ft. deep, and the water stands at a level (which varies very slightly) of about 3 ft. 6 in. from the bottom. The well is lined throughout from the very bottom to a point some 15 in. above the ground with large concrete sewer-pipes 2 ft. 3 in. in diameter, and these pipes have been carefully cemented at their junctions. Outside the pipes a circle of cement concrete about 4 in. thick has been run in. It will thus be evident, the sides being perfectly protected, that no water can possibly enter this well except through the bottom, all contamination by lateral soakage through the walls being rendered impossible. The well is surrounded by an asphalte path about 3 ft. wide and slightly sloping away from it, and it is encircled by a clipped privet hedge about 5 ft. high except at those points where the circle of privet is cut by the paths. There is a closely fitting cover of oak, which has an outer casing of lead, and thus all contamination from above is prevented. The water is drawn off through a 2-in. leaden pipe which passes through the outer concrete and the concrete lining pipe, the cut passage for the pipe being carefully closed with cement. The pump is behind the privet hedge, and is provided with a sink and waste pipe which takes the overflow some twenty or thirty yards to a neighbouring stream. In this way the constant dripping of water in the neighbourhood of the well is prevented, for I am very much alive to the dangers attending a constant water-drip, which might be able in time to worm its way through soil and concrete into the well itself. I regard this question of the overflow as one of great importance which is too often neglected. Figs. 1 and 2 show this well in section and plan. The nearest point to the well upon which any manurial deposit of excreta is likely to be made is on the far side of the privet hedge, and the distance of this point from the bottom of the well is 7 ft. All water which finds its way into the well must have passed through at least 6 ft. or 7 ft. of earth, and, of course, the great bulk of the water has passed through a far greater length. Three chemical analyses of this water, one by Professor Frankland and two by Dr. Kenwood, testify to its organic purity, and three bacteriological investigations have given similar indications of purity. A bacteriological examination of the water from the river Anton and the well water, made on April 11th, 1895, gave 1133

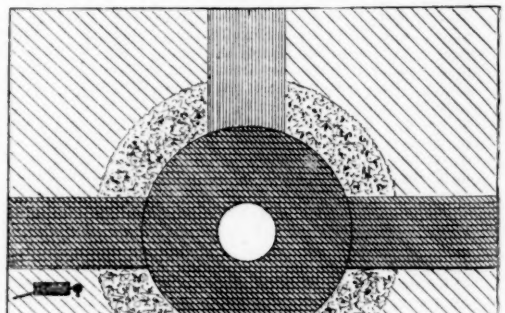
FIG. 1.



Section of well, showing concrete lining and position of pump. The diagonal line on the right of the figure is to mark the distance from the nearest garden bed to bottom of well.

growths per cubic centimetre for the river and only 7·5 for the well. Of course there may be a dangerous microbe among this small number, but, on the whole, I think the best guarantee of the purity of the water is the condition of the well, which after four years is as clean on the bottom and sides as it was the day it was made. There has been no appreciable increase of sediment on the bottom, and the pebbles are as plainly visible as they ever were. The well is for experimental purposes mainly, but water for garden use is drawn from it, and during the severe frost of last winter my gardener and some of his neighbours were entirely dependent upon it

FIG. 2.



Plan of well, showing its relation to paths and hedge.

for household purposes. I seldom go into my garden without drinking some of the water, which is clear and delicious, and my numerous guests seldom escape without drinking some also. My belief is that, as I have said, the well is a very safe one. It must be mentioned, however, that after very excessive amounts of rain, such as occurred once during the past summer, when the water came down in a perfect deluge and lay for hours in big pools upon the ground, the water in the well becomes turbid. My belief is that under these circumstances the fine sediment on the bottom

is driven upwards by the suddenly increased pressure of the water outside, and I have no reason to think that after these storms there has been any actual increase of sediment, the stones at the bottom remaining as visible as ever. I have never been able to make a bacteriological examination after one of these floods, but hope to be able to do so.

The question whether such a very shallow well becomes dangerous after a flood is a most important one. It is clearly understood that with my well there is no possibility of flood water entering at any point except through the bottom. It must be recognised that in times of flood with a drowned humus the power of purification may be lessened. On the other hand, my experience leads me to say that it is very difficult (if it be possible at all) to wash fæces out of well-tilled humus by any rain which we get in this country. Last autumn (1894), in the south of England, we had very severe floods, and I was able to note that the humification of fæces in my garden was, as a consequence, very much delayed. Fæcal matter was visible on turning up the soil for nearly three months after it had been deposited, and the masses of fæcal matter were enclosed in crusts of humus which had been rendered airless and clay-like by the excessive amount of water. This naked-eye test seemed to show that the well had not been endangered, for there were the fæces, and most certainly they had not been washed downwards. When the pores of the soil had been opened by frost the humification of the fæcal matter went forward as usual. This experience seems to enforce what I have said before—that a drowned humus cannot deal with dung. That floods may be dangerous to surface wells we all know, but it will be recognised that the conditions and circumstances of my well at Andover are distinctly different from those of the wells mentioned in the following extract, which were filled with flood water by leakage through their tops and sides.

In the Twenty-third Annual Report of the Local Government Board (1893–1894) reference is made by Dr. Thorne Thorne to certain investigations on outbreaks of typhoid fever in certain riverside populations in Yorkshire and Lincolnshire. These investigations by Dr. Bruce Low seem to prove conclusively that the fæcally polluted water of the Rye and the Trent had infected with typhoid fever a certain proportion of the inhabitants who consumed the raw river water. Dr. Thorne Thorne goes on to say: "Incidentally it transpired during the course of this inquiry that the town of Malton had an altogether exceptional history in so far as enteric fever and diarrhœa in fatal form are concerned. Situated on the Derwent, four miles below the confluence of the Rye with that river, Malton was found to derive its water-supply from the Lady Well, sunk to a depth of 14 ft. in the middle oolite rock and occupying some low-lying land close to the river bank. Into this well river water gained access as soon as the Derwent rose above a given point, the amount of river water reaching the well varying from mere leakage through holes and crevices in the banks to complete submersion of the Lady Well by the swollen stream. Gradually it had come to be noted that the outbreaks of fever and of diarrhœa followed on seasons of flood in the Derwent, a river which was referred to locally in 1890 as containing 'the sewage of all the towns and villages situated near the Rye and its numerous tributaries.'" In country places where surface wells are the only available source of water I strongly recommend that they be made on the pattern which I have been describing.

It may be well that I should describe precisely my method of dealing with excreta in my garden at Andover. My twenty cottages are provided with pails, except one which is provided with a "dry catch," and in time I hope to substitute the dry catch for the pails. It is a much better arrangement, and it is only for financial reasons that I do not effect the change forthwith. The contents of the pails and dry catch are removed every day except Sunday, and as the distance to be travelled is very slight the time occupied is not more than an hour. This daily removal is very easy and, I believe, economical; on sanitary grounds it is most advisable. The pails are provided with covers, and they are moved two at a time by one man who is provided with a milkman's yoke. The removal is thus done in ten double journeys, which vary in length from about five yards to 200 yards; perhaps an average of 100 yards, or a little more than a mile in all. With "dry catches," a properly shaped shovel, and an iron vessel on wheels for transport, the removal of the excreta from the twenty cottages to the garden could be effected in a much shorter time. In disposing of the excreta I follow nature. Under natural conditions the increase of the humus is effected solely by organic matter deposited on the surface. I therefore have the excreta merely covered by mould for decency's sake. The scavenger digs a furrow, as is done by a gardener when cultivating his land, the excreta are placed in the furrow and then covered up, and thus at one operation the land is tilled and the excreta disposed of. All foul smell is at an end the instant the excreta are covered, and in this garden, which is a pleasaunce of considerable beauty, there is never anything to offend the eye or the nose after about 7.30 in the morning. I believe that, in the absence of any evidence to the contrary, when the excreta are thus covered with earth there is an end to any danger to health. In times of exceptional frost the excreta are mixed with ashes and stored until they can be inhumed. The great importance of this superficial burial must be insisted upon. It is the top of the soil which is most full of life. As regards microbial richness the first few inches are worth all the rest. It is the top of the soil which can destroy and assimilate organic matter; the subsoil has no such power. It is a common mistake to bury deeply any organic matter which seems to us to be particularly offensive. In this way we ensure its preservation and endanger the wells. The safety of our wells is directly proportionate to the thickness of the humus, and to place organic matter below the humus is like throwing the dog's bone beneath the kennel instead of into it. The inefficiency of deep burial hardly requires to be mentioned. Bodies buried deep in the subsoil last for years, while those which are placed in the living humus are rapidly destroyed.

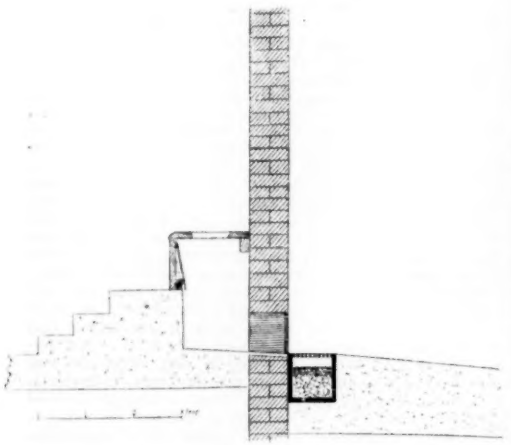
I should like to mention that when my well was dug there was found beneath a turf path and about three feet below the surface a large quantity of dead leaves, which had probably been deposited in a pit at some long antecedent date. They had undergone scarcely any decomposition, although they had been in that position very many years. Again, when engaged in pulling down a cottage my man unearthed an old privy some four feet below the surface. In this privy unmistakable fæcal matter was recognisable. Neither he nor I nor any of the neighbours had any knowledge of any such privy having been in use of late years, and my belief is that these recognisable excreta had been deposited at least half a century ago. Who shall say that these excreta did not still contain spores of all the ills that flesh is heir to? Under natural conditions all dead organic matter falls upon the surface of the ground, and nature is a very sure guide.

After the excreta have been superficially buried plants of the cabbage tribe are dibbled in as soon as may be. This is often done within three days, and the cabbages are sure to flourish. Seeds do not flourish with any certainty, and, although I have seen fair crops of turnips, peas, onions, &c., when the weather has been favourable, such crops are liable to fail, while cabbage as a first crop is practically sure to succeed. I could have shown you a month or so ago a spot in the Andover garden which had been sown with turnips and radishes as a first crop after manuring. The produce was Brobdignagian, but worthless except to dig into the ground. The development of green head was very great, the roots were huge and woolly. When the plan of operations which has been described (daily superficial burial followed by cabbage planting) was commenced some ten years ago many were the prophecies of failure. The practical men shook their heads and said I never should succeed that way, but that I was "bound to store the stuff in a heap to allow it to ripen before being put on the land." As a sanitarian one was naturally anxious to get the excreta below the surface of the ground as soon as possible, and I now feel confident in stating that the plan I recommend is the best from the sanitary, agricultural, and financial points of view. Sanitarily it is the best because there is no delay in the safe bestowal of the excreta; agriculturally it is best because no ammonia or other volatile body is given to the air, but all goes to enrich the land; and financially it is best because it involves moving the dung once only instead of twice, the same operation that tills the land serves to cover the dung, and while the excreta are "ripening" for other crops the farmer gets a crop of cabbage. After the cabbage crop the ground is still very rich and will grow everything or anything to which the soil and situation are suited in high perfection.

The best receptacle for excreta—far better than any form of pail—is one which imitates natural conditions and ensures that the excreta are kept above the level of the ground and are exposed to the air. Such a receptacle is the "dry catch" of which I have spoken. The privy seat is raised

on a few steps and the receptacle below is concreted, the floor being made to slope gently towards the door, which should be made of fine wire netting in order to ensure thorough aeration. The urine in part (and my experience leads me to say in very small part, because it is voided in front of the fæces, which check its downward progress) flows towards the door, and may be absorbed either by a heap of earth or by sawdust or other available absorbent contained in a specially constructed depression or gutter. This arrangement is shown in Fig. 3. In such a receptacle

FIG. 3.



Section of "dry catch" privy, with gutter filled with sawdust to absorb excess of urine.

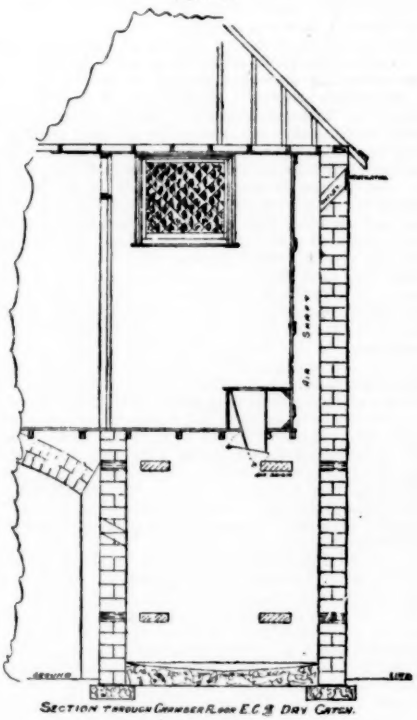
as this the humification of the fæces will go forward even though no earth be added. I had practical proof of this last summer, because the "dry catch" which I have erected was, by a mistake of the scavenger, not emptied for nearly two months, and we found that the bottom of the mass had humified and become inoffensive. No earth had been added in this case. The other figures (Figs. 4 and 5) show a specially contrived plan, the object of which is to make "dry catch" earth closets acceptable to ladies. This closet is approached from the bedroom floor of the house through a lobby having cross ventilation; the "dry catch" is on the ground floor and is provided with a door through which the soil can be removed without traffic through the house. (See Fig. 4.) The earth for this closet is also supplied from the outside through a specially contrived hopper so that the man who brings the earth cannot see, or be seen by, any chance occupant of the closet. The pan is of a shape which has carefully been considered, is screwed to the under side of the seat, and is fitted at the lower end with a flap having a somewhat heavy counterpoise. By this arrangement the excreta drop out of sight and all up-draft is prevented. The flap works in a slot and can be removed with perfect ease for purposes of occasional cleansing. (See Fig. 5.) This pan, which has worked exceedingly well for two years, was made for me by Messrs. Righton of 376, Euston-road.

To show how little annoyance may be caused under certain circumstances by excremental matters it is only necessary to appeal to the streets of London or any other large city. The amount of horse excrement and urine which are voided in the streets is prodigious, and at cab-stands the same thing goes on day after day precisely in the same spot for years together, so that the earth near there must be sodden through and through with urine; and yet how little offence there is—a certain pungency from ammonia, but no sickening, foul smell. A cab-stand is usually in very strong contrast to the urinals provided for human beings, where, in spite of a lavish supply of water, the odour is sickening and most offensive unless an attendant be provided to keep the place absolutely clean after the manner of a housemaid. Then again what is street mud! It is a collection of everything which is dropped in the street, excremental and otherwise, ground more or less by the traffic and mixed into a paste with rain water and detritus from the roads and vehicles. It is ugly, sticky, dirty, and gives endless trouble to those who like to have their clothes and carriages look clean and smart; but—and this is the point to which I would call attention—it is never foul or offensive. It is scraped into heaps and is often left for hours and practically never causes any foul smell. The odourless mud-heap is usually in very strong contrast to the sickening smell of the sewer grating alongside of it.

Simple water is by no means a perfect cleanser, especially for sticky material like fæces, which we all know requires for its removal soap in addition to hot water and a nailbrush. In a butcher's shop putrefaction is kept in check by dryness and fresh air, and the use of sawdust to absorb blood. The results could not be better, and my experience has been that in cow-houses, stables, piggeries, &c., the less they are swilled with water the sweeter they are, provided there be ample ventilation and enough absorbent material to enable the dung and urine to be swept up and carted away.

Our go-ahead municipalities, formed on democratic lines, are more ostentatious than the worst of Roman Emperors. The London County Council wished at one time to give £750,000 for a *site* for its house! The central ideas of modern municipalism are the raising of loans and the sweating of the ratepayer. It must be remembered that there is no relation between magnificence and real efficiency. For example, in a town which I sometimes visit I am always interested by a stately pageant consisting of a huge conveyance weighing at least half a ton and looking like a cross between a railway truck and a hearse. This is drawn by a

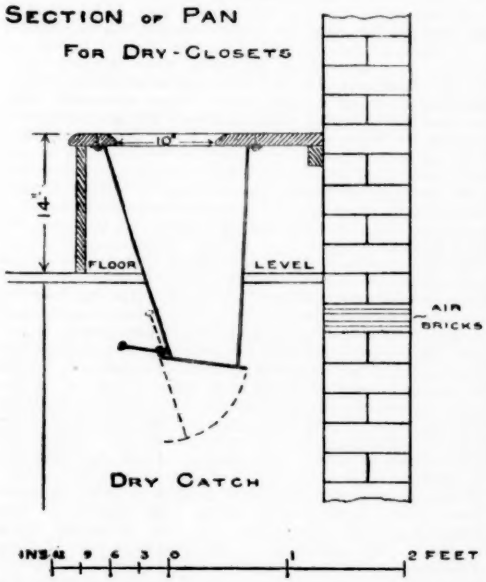
FIG. 4.



horse weighing 15 or 16 cwt., and this horse is guarded by two men weighing, perhaps, 12 st. apiece. Inside the hearse are eighteen huge pails weighing 40 lb. each, and inside the pails are the weekly excreta of ninety people, which should, if properly managed, certainly not weigh more than 200 lb. or 300 lb. In short, there are about 30 cwt. of gear for the removal of at most 3 cwt. of material. This cumbrous array works, it need hardly be said, at a funeral pace, and there can be no doubt that a lad with a hand-truck coming every day would do the work far more rapidly, efficiently, and cheaply.

It must be borne in mind that the fertility of the soil should bear a certain proportion to the density of population, and that the ability of land to support its population ought steadily to increase, especially if the population enjoys the blessings of free trade. I may perhaps best illustrate my meaning by referring again to the visit which I paid this summer to the farm of Mr. H. C. Stephens, M.P. The down lands which comprise this district consist of a very few inches of humus overlying chalk, the herbage is scanty, and the population of animals (in relation to acreage) necessarily very small. One of the difficulties which the farmer has had to encounter in this district is the obtaining of sufficient water for his stock, and perhaps the most important work which Mr Stephens has done is to sink a deep well in the chalk. This well, worked by a wind engine and provided with storage reservoirs, gives a supply of water which may be regarded as illimitable. With good water-supply, ample area, and the possibility of importing food which the neighbouring railway affords, it became possible to maintain a very large number of sheep, oxen, and horses for farm and

FIG. 5.



breeding purposes. The animals are all folded, and the whole of their dung is returned to the soil, and the effect produced by this large addition of organic matter cannot fail to strike the visitor, who finds in spots where the herbage was previously so thin as to approach barrenness that he now has to wade knee-deep through a thick felt of grass. All over the farm the effect of adding this organic matter to the soil is everywhere apparent, and it is certain that the need of imported food-stuffs for the animals must diminish in proportion to the increase of fertility of the farm. This estate on Salisbury Plain realises, in fact, the utopia of which I have spoken in "Rural Hygiene"[4]—i.e., a place where there are water-pipes but no sewer pipes. The indispensable water has by skilful but comparatively simple engineering been brought within easy reach of the human and animal population, but the organic excrements and other refuse, instead of being washed away into a neighbouring valley to poison the inhabitants there, are retained upon the soil to provide extra herbage, extra meat, extra work, and extra wages, with increased contentment and no loss of health. The increased fertility of the soil must have the effect of counteracting poverty and diminishing that charge upon the land known as the Poor-rate, and, as for sanitary rates, the very essence of the progress I have been describing consists in the fact that there are none to pay. When the members of the local council in this utopia have mended the roads and paid for the school they may return with a clear conscience to their own business instead of meddling with that of other people.

The fact that the potential increase of the fertility of the soil is to a certain extent proportioned to the increase of population is a political and economical fact of fundamental importance. The fertility of the soil of a country which imports millions of tons of food ought steadily to increase, and I believe that but for counteracting circumstances free trade ought to have benefited the farmer equally with all other classes of the community. If the enormous quantity of excremental and refuse matters due to free trade had been placed upon the land to increase the national stock of humus the fertility of the soil must have increased proportionately, and the fall in prices due to the competition of imported food would have been proportionately counteracted. If on the farm at Cholderton which I have been describing the well water had been used or washing all the excrement of the animals into the nearest river there could have been no increase of fertility of the soil, and the animals must have been dependent upon imported cake and other food-stuffs in a degree which would never vary, instead of, as at present, tending steadily to get less. Among the nostrums which have been suggested for the relief of agricultural distress are "light railways," but as imports and exports are apt to balance themselves one would fear that the light railway, for every truss of hay or sack of corn which it conveys to the nearest junction, will bring back a frozen carcase of meat or its equivalent. If, however, these light railways (and the existing railways) can bring the refuse of the towns on to the land to increase the agricultural capital in the form of humus, the farmers will certainly have more to sell and our need of imported food (per head of population) will tend steadily to get less. Until—if I may use the expression—we make some serious effort to leave our imported "cake" upon the land in a form in which it can be advantageously utilised, our needs for importation will never get less, and our state of scare as to the sufficiency of our navy will get steadily worse as the population increases. It is very bad policy for railways to charge exorbitant rates for the conveyance of dung, because the less dung they import the less will be the export of produce on the return journey. It is impossible to doubt that the man who increases the fertility of the soil of a country deserves well of that country and should be encouraged by the State and his fellow countrymen. Professor Otis Mason of Washington has gone so far as to say: "The form of law which does not *decrease* the amount of taxation proportionally to the yield per acre is not in the line of progress." And again: "Any law which punishes a man with taxation for preventing waste, recuperating worn acres, or developing the latent resources of nature is wicked." There can be no doubt that taxation presses very hardly upon agriculturists, especially those whose land happens to be within the boundary of a "progressive" corporation. A friend who farms 200 acres of land (of which fifteen are grass) in the Thames Valley has been good enough to show me his receipts for taxes for the year 1892, from which it appears that he and his landlord pay between them more than £300 a year in imperial and local taxes. This is due to the fact that he is under the heel of a "progressive" board, which, finding it can borrow money at 3 per cent., is making full use of its powers and is fast converting a pretty village into something scarcely distinguishable from Houndsditch.

We may now profitably turn to the consideration of malaria, a disease which is undoubtedly connected with the soil and which has its habitat in the soil of certain places. Malaria requires for its development decaying organic matter, a high or moderately high temperature, and usually an excess of moisture. Tropical marshes are the elected seats of malaria, but not the exclusive seats, for it is known that certain rocks and arid plains, as well as the sandy estuaries of rivers, are liable to be malarious. The one thing which all, or almost all, malarious districts have in common is the fact that they are barren, or nearly so, uncultivated, and in many cases uncultivable. Malaria is rare in England, but once it was common, and we must not forget that James I. and Cromwell are both of them said to have been victims of this disease, which was rife in London in their time, especially in the Essex marshes and on the south side of the Thames, in Lambeth Marsh and the adjoining districts. An undrained country is uncultivable, and it has been found that drainage followed by cultivation has in this country enormously lessened the amount of malarious disease.

[4] Essays on Rural Hygiene, second edition. Longmans, 1894.

Cultivation of land finishes the work begun by artificial drainage. The soil is dried and aerated by tillage, and the organic matter, when the humus is no longer drowned, is oxidised and goes to nourish plants and trees which effect an upward drainage no less important than the downward drainage, while the oxygen exhaled by the green leaves cannot but benefit the air of the locality. If we wish to keep clear of malaria in this country we must till the soil and so nourish the humus that its produce may be sufficiently valuable to bear the expense of any artificial drainage which it may be necessary to maintain. If the land of this country goes out of cultivation, as in places it seems to be doing, I see no reason why we or our successors should not witness a recrudescence of malarious disease in localities which are prone to develop it.

It will not be unprofitable in this connexion to consider the history of the Roman Campagna. It is generally admitted that the Roman Campagna was not always the desolate waste which it ultimately became. It was prone to malaria, doubtless, but this was kept in check by the large farming population. It is not conceivable that in days when locomotion was slow a city could have attained the proportions and importance of Rome if it had been situated in the middle of a sterile and malarious plain. The neglect of agriculture began in the Augustan age, when Rome was at the zenith of its power, and it is worthy of note that Mæcenas is credited with having incited Virgil to write the "Georgics" in order to direct, by this fascinating method, the attention of the Roman people to the neglected joys of agriculture. With the acquisition of fertile districts in Africa and elsewhere, not only did the need for home-grown commodities decrease, but it is probable that the profits of home farming decreased also. Corn was imported in enormous quantities, while the expenses connected with the defence of the Empire led to such a merciless taxation of the land-holder that in self-defence he was obliged to allow his land to go out of cultivation, and thus escape from the brutal exactions of the tax-gatherer. According to Gibbon, within sixty years of the death of Constantine 320,000 acres of the district of Campania had become barren. Further, there can be no doubt that the Cloaca Maxima and other cloacæ sent to the Tiber much, if not all, of the organic refuse which should have been returned to the land. Finally, there can be little doubt that the extravagant water-supply of ancient Rome must have had the effect of causing neglect of local wells, and as the water of the aqueducts was supplied to places in the Campagna as well as to Rome itself, the discontinuance of pumping must have helped to leave moisture in the soil at the same time that an extra supply from a distance was giving an additional quantity to it. As these great works of engineering did away with the necessity of manual labour, and as the barren land stood in no need of husbandmen, it is not to be wondered at that the problem of the unemployed grew urgent in Rome. We hear that in the later days of the Empire the masses congregated at the baths or waited whole days at the doors of the amphitheatre while they were fed with doles of bread or corn supplied from the public granaries. With a dense idle population and with barren and unwholesome surroundings the amenities of Rome as an imperial residence declined, and one is not surprised to find that Diocletian seldom visited it, and one cannot but think that the social and sanitary conditions of the capital were among the causes which led Constantine to abandon it in favour of his new city on the Bosphorus. Finally, one is not surprised to hear that when Alaric took the city in the beginning of the fifth century he did so, not by direct assault, but by seizing the huge granaries and magazines at the Port of Ostia, and then offering to the unhappy Romans the choice of surrender or starvation. We are often asked to admire the Roman aqueducts, and Rome is not infrequently held up to us as a model to be copied. I fear we are copying her only too exactly, and I fear that equally with Rome we shall find out the futility of a brutal and reckless expenditure mainly directed towards the starvation of the soil and a senseless struggle with conditions imposed on us by nature. I have heard it suggested that the cultivation of the soil of England is of no importance, that our islands are destined for residential and manufacturing purposes only, and that our sustenance is to depend entirely upon "big-bellied argosies" bearing all the treasures of more fertile climes. But the cultivation of the soil and the nurturing of the humus have important bearings upon questions other than food-supply, and if we continue to starve the humus and to cover our filth beneath it instead of upon it I fear that the cost of living in this country is likely to increase, while the pleasures of existence will diminish.

The moral of all that I have been saying is to the effect that to nourish the humus and to till it are the inexorable duty of the sanitarian. This simple duty is the key to plentiful food and a good supply of wholesome water. Nature is relentless and will sooner or later destroy those who neglect to follow her inexorable laws. We used to say that "the weakest" (morally, physically, and mentally) "must go to the wall." Now we use the expression "survival of the fittest" to express the same idea. Nature does not relent, but man, in his commendable efforts towards philanthropy, endeavours to relent, and hence the principle underlying much modern sanitary work is the attempt to bring about the survival of the unfittest. If I may judge from the criticisms to which at one time and another the ideas which I have put forward have been subjected, I may conclude that the principles advocated are considered right, but that the lowest classes of our population are not to be trusted to safeguard to any extent the wholesomeness of their homes. Therefore, we are all asked to come down to the level of the dirtiest and most careless, and our sanitary methods (in which there is too much of Hercules and too little of Minerva) do not admit of any encouragement being given to those living within a municipal boundary who may be so circumstanced that they can adopt the principles I have advocated. No! we must all be tarred with the same brush, and no quarter is given to those who refuse to allow the municipality to be put to the trouble and expense of robbing them of stuff which they find invaluable on their own land. In Hampshire I have spent a considerable sum of money in freeing the river from some pollution and saving trouble to the town. Incidentally, I have improved the value of a house, and, of course, the rates of that house have been raised. Such a fact is a most effectual check upon the vast majority of those who might wish to imitate what they may approve of in principle, and I feel assured that no real advance in sanitation will be made until there is an equitable adjustment of sanitary rates and we have the right, if we desire it, to pay for water by meter. That water should be paid for according to rateable value and that the rating authority and the water authority should be identical seems to me to be an arrangement which the ratepayer will possibly find irksome. The greatest of sanitary troubles in the present day is overcrowding, and this trouble is greatly fostered by our methods of sanitation. And yet we find responsible persons suggesting that open spaces should be taxed at "site value," while at the same time they are willing to spend any amount of millions in bringing water from Wales because they think that eventually their dangerously dense population will have a density twice as great. We shall some day recognise the futility of fighting against nature. It is the engineer's business to overcome natural obstacles, and we of the medical profession cannot but have the greatest admiration for the many distinguished members of that sister profession which, by its skill and daring, has in countless ways assisted the development of our commerce and manufactures. They have indeed "expelled nature with a pitchfork," but it behoves us to remember the rest of the quotation. We must distinguish also between brilliancy of achievement and the end attained. We all of us admire the brilliant men who made the Thames Tunnel, built the *Great Eastern* steamship, and gave us the luxury of the broad-gauge railway; but it is doubtful if the original shareholders in those enterprises would participate in our enthusiasm. Money will accomplish nearly anything in the engineering way, and it is not the engineer's business to consider the financial side of the question. I have always had a shrewd suspicion that Archimedes was possibly less admired by the Syracusan ratepayer than by the rest of the world, and I have often pondered whether, had he lived in these days and had made his famous request of δὸς ποῦ στῶ, the Local Government Board would have sanctioned the issuing of a Syracusan 3 per cent. stock to provide the fulcrum for which he asked.

I frequently meet friends who say, "I've been reading that article of yours about the earth," and so forth, and then, after patting one on the back and being charmingly complimentary, they generally end by saying, "But, after all, you know, give me a good old watercloset with a jolly good flush." The fascinations of this winsome apparatus seem unconquerable, and one is bound to confess that—provided the apparatus be of a good pattern and well made; provided

the plumber who sets it has knowledge and a conscience; provided those who use it do not try its constitution with brickbats and old boots; provided there is not a frost; and provided there is not a drought—it does sweep out of the cockney's house material for which he has neither use nor market. All the difficulties and dangers of the watercloset are on the far side of the trap, and do not trouble the householder. I feel inclined to paraphrase the words which King Lear used to something equally fascinating and, as he found, equally treacherous:—

> "But to the syphon do the gods inherit,
> Beneath is all the fiends'. . . .
> Give me an ounce of civet, good apothecary,
> To sweeten my imagination."

As a champion of individual liberty, I would say that those who in country places wish for waterclosets should pay for them, and those who, for conscience' sake, do not pollute the rivers or starve the soil should not be taxed to pay for the misdeeds of those who do.

CASES ILLUSTRATING THE SURGERY OF THE KIDNEY.

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(*Continued from p. 1041.*)

SINCE my last communication I have, through the courtesy of Dr. W. McGowan of Maghera, Ireland, received particulars of the illness and death of Case 40 of the nephrectomies. The patient remained in excellent health for more than twelve months; then, in November, 1893, he had a very severe epileptic seizure. Other seizures followed, and though he continued his official work till April, 1895, his bodily and mental powers gradually failed, and he died this autumn after left hemiplegia of some weeks' duration, ending in coma, the epileptiform attacks having been much less frequent and severe for some time before his death. It is interesting to compare the after-history of this case with that of No. 36, already recorded, secondary deposit in the membranes of the brain being, I have no doubt, the cause of death in both cases. The seats of secondary deposit in cases of sarcoma of various abdominal organs are very interesting, and deserve more accurate observation and record than they have yet (so far as I am aware) received.

CASE 24.—This is a good example of the dangers of allowing cases of nephro-lithotomy to move about too soon, however smooth and quick the recovery has apparently been. The patient was a young woman, three years married, mother of one child twenty months old. When quite a small child she fell off a chair, breaking her collar-bone, and was laid up for a long time and ailing for longer, and during this illness she began to suffer from pain in the back and along the course of the right ureter. She had never noticed any swelling in the side. The pain came in fits and was worse after action of the bowels, and when bad was always accompanied by much irritability of the bowels. The urine was often dark and thick, but there was no very distinct evidence of hæmaturia. There was constant slight albuminuria, and oxalates were frequently present in the urine. The crystalline deposit was absent in specimens passed in the morning on getting up. I have noticed this in other cases, very markedly in No. 20. The physical examination did not help the diagnosis. I operated by the combined method on Feb. 23rd, 1893, and had much difficulty in extracting the stone. This led to so much handling of the kidney from the peritoneum that I thought it advisable to introduce a glass tube into the abdominal cavity beside the kidney, and it was in for forty-eight hours. The morning after the operation the temperature rose to 102° F., but quickly fell when the skin began to act, and she made a very smooth recovery. She was apparently quite well when she left the nursing home five weeks after the operation. The loin wound healed quickly and apparently soundly, and there was no sign of any trouble when she first began to turn about in bed or first got up. The urine before the operation contained pus and micro-organisms, so that it was a septic pyonephrosis, and there was unusual damage, facts of considerable importance in view of the after-history. She went home well early in April, and in July, during my absence from town, Mr. J. D. Malcolm opened a large perinephric abscess, putting in a rubber tube; pus and eventually urine flowed through this for some weeks. In September the wound healed, but she had some pain in the loin from time to time, but no swelling or tender spot could be found, and she was strong and well. After menstruation in November and December there was renal colic and much pus in the urine, with raised temperature, loin tenderness, and blush over the kidney. At Christmas Mr. Malcolm again saw her, and found the kidney itself greatly distended with pus, and put a tube into it through the old loin scar; she was then fitted with a renal urinal, and in March was wearing this, and was strong and well and content to let things go on as they were rather than submit to nephrectomy, which had been proposed. The amount of urine collected from the loin tube varied greatly in its proportion to that passed per urethram, from five ounces to twenty ounces being the range from the tube, the bladder urine varying from twenty to forty ounces. The history of the case after operation leads me to the conclusion that I allowed the renal wound to heal up too quickly, and that as a result the septic pyonephrosis continued and the ureter blocked and caused reopening of the renal wound and escape of pus and urine into the retro-peritoneal cellular tissue; probably some clot has become organised and partly blocked the ureter, though it is curious this should have occurred in face of the constant septic condition. The moral is, when there is septic suppuration along with calculus drain the kidney well.

CASE 25.—The patient was a married woman with several children. She had always been very active. The first symptoms of calculus came on after starting golf. There was bleeding and loin pain on slight exertion, but never an attack of renal colic. I operated by the combined method on Oct. 18th, 1893, and found at once a small angular stone in the lower part of the kidney, but had great difficulty in extracting it, as it was embedded in the substance of the kidney. I passed a rubber tube into the loin wound up to, but not into, the kidney. The calculus was an irregular and long-shaped oxalate, with very sharp points, and weighed ten grains. She made a smooth recovery and is now in good health.

CASE 26.—This is an unusually interesting case, and I must record it in a little more detail. The patient, a man aged fifty-six years, was brought to me by Dr. Kirkwood of Peterborough, who had attended him for many years, and believed him to be suffering from renal calculus. He had left the volunteers when only twenty-six years old because he passed blood in his urine, and he had long suffered severely, but had refused to have any special advice or to have anything done, until his sufferings became so severe, and his loss of health and strength so marked, that he at last consented to consult me. When he came into my room his appearance at once suggested advanced malignant disease, and on proceeding to examine the abdomen I found a hard and exquisitely tender swelling protruding low down over the bladder on the left side, which I believed to be a mass of intra-peritoneal carcinoma. I was the more inclined to this belief because this swelling was low down on the left side of the abdomen, whereas all his renal symptoms were connected with the right kidney. I think I should have advised against operation, but Dr. Kirkwood having watched the case for so many years, and being so confident that the tender body was a stone, I decided to make a small central incision and explore it with my finger. If it was a malignant growth I was prepared to advise against further interference. This was done on Oct. 23rd, 1894, and on introducing my finger I found that the tender prominence was a branch of an enormous calculus in the pelvis of the right kidney. I therefore proceeded to incise the loin, and with great difficulty, owing to its size and many branches, I at last extracted the main mass after breaking off most of the branches. The extraction was much aided by my being able to manipulate the stone through the distended pelvis from the peritoneum; several smaller stones were also extracted, some with facets fitting the branches. There was great loss of blood, and large masses of granulation tissue or new growth were torn away from the inside of the kidney, and a very large cystic cavity, behind and above the kidney, was opened and emptied of a quantity (two pints and a half) of brown serous fluid without any urinous odour. The kidney was greatly thickened and hardened; and when I had thoroughly cleared the pelvis I found another hard spot, which I believed

contained some small stones, but the patient was by this time in such an exhausted condition that I thought it better not to make any further search. Drainage-tubes were passed into the cyst and also into the pelvis of the kidney. His temperature in the rectum was 95·4° F. for many hours after the operation, and his pulse 120, but he soon rallied; the left kidney acted well, and gradually a free discharge of urine was established from the loin tubes and he began to gain strength and flesh, the drawback to a more speedy convalescence being the occasional accumulations of offensive pus in the cyst cavity, which was most difficult to keep well drained. He was up on the couch on the thirty-eighth day after operation, and went home on the fiftieth day still wearing the rubber tubes in the cystic cavity, but not in the kidney. The stones removed weighed 5½ oz. Careful observations were made for a month after the operation as to the amount of urine passed from the bladder and draining away, and the latter was found to be about one-third of the whole, but there was distinct evidence all through the case that a good deal of the urine from the right kidney passed down the ureter into the bladder. On Feb. 17th, some weeks after his return home, an accumulation took place in the cyst, owing to gradual blocking of the tube opening, and Dr. Kirkwood had to enlarge the sinus, and let out a quantity of offensive pus. He was better for a time after this, and then without any very apparent reason again began to lose flesh and strength, and died at the end of June, eight months after the operation. An examination of the kidney after death revealed the presence of extensive deposits of carcinoma, which had also spread into the tissues in the wound, and some small stones in one of the calyces, doubtless those which I thought I felt at the time of the operation. I am inclined to think that I might have obtained a longer lease of life and more comfort for this patient had I performed abdominal nephrectomy instead of nephrolithotomy; but the nephrectomy, in presence of the large cystic cavity, and with such dense and possibly malignant adhesions, would have been an exceedingly dangerous and difficult operation, and local recurrence of the carcinoma would probably have been rapid and very painful. I think that though the case could not be a cure, it is entitled to a place among the recoveries, and its ending, and the knowledge of the conditions obtained after death, rather add to, than detract from, its success as a surgical procedure. It is remarkable that with such extensive cancerous deposit in an important organ the patient should have looked so well, and gained so much flesh and strength, as he did on more than one occasion after the operation—i.e., so long as the cyst cavity could be kept free from accumulation.

CASE 27.—As not infrequently happens in surgery, this case is remarkably like the preceding one in many points. The patient was a male aged sixty years who had suffered from gout and had been a great whisky drinker, taking about half a bottle daily for a long time, and had lived a very quiet, sedentary life. There was a marked history of malignant disease in the family. In 1879 the patient had had cystitis and had been under the care of Sir Henry Thompson. Since this attack he had not been conscious of any bladder or kidney trouble, excepting that he was always obliged to get up once or twice in the night to pass urine. It had always been clear till a few weeks before I saw him, when it began to be muddy and there was a good deal of mucus in it, but never any blood at any time. He had been getting deaf for some time and since his illness had become almost stone-deaf; he was also when I saw him much emaciated, with a dry, wrinkled, and somewhat yellow parchment-like skin. He was suffering a great deal of pain in the right side, and could only lie on his back. In the situation of the right kidney there was a large fixed and tender swelling which seemed to me to be probably malignant, but I deferred a definite opinion till I had examined the urine, which I found to be heavily loaded with pus, and I therefore advised an exploration of the kidney. He bore the journey up to town from his home in the country well, but in the night after arrival he had a severe rigor, his temperature rising to 105·4° and then rapidly falling to 95·0°. I operated the following day, and found on uncovering the swelling an extensive diffused blush over it with marked increase in its size. I made an incision into it just below the last rib and found a large abscess burrowing among the muscles with great ragged cavities and very offensive fæcal-smelling pus. I found in one place a hard body which I have no doubt was a small kidney, but needling only gave the impression of dense inflamed tissue, so I left it alone, proceeding to break down the septa and to thoroughly explore the cavity. I found a small calculus bedded in caseous material, and lying in about the situation of the renal end of the right ureter; it was firmly embedded, and when extracted was found to be deeply grooved all round, as stones partly in the pelvis and partly in the ureter so often are. There was a small opening through the cavity in which the stone lay, and a sound passed through this into a great pus cavity in front of the kidney. This opening I dilated and passed a drainage-tube into the cavity. Having well washed out the whole cavity with injections of warm corrosive sublimate lotion (1 in 1000) and removed large masses of caseous material with a scoop, I put tubes into the various pockets. I did not use any ligatures or sutures. He bore the operation much better than I expected, and it soon became evident from the bladder urine and from the flow from the tubes that the pelvis of the kidney or ureter had been opened. Unfortunately, it also became apparent that there was a fistulous communication with the bowel, and this, instead of closing as the abscess cavity closed up and the urinary flow decreased, became evidently larger with such offensive discharge that I came to the conclusion that it was a mixed case like the last, the calculous irritation having led to cancerous growth. With free discharge and careful nursing he improved for a time, but the discharge became more and more offensive, he suddenly developed symptoms of septic absorption rather less than three weeks after the operation, and died very quickly with acute pneumonic symptoms. I did not obtain a post-mortem examination. The remarkable feature in this case is the very extensive peri-nephric suppuration with such very slight symptoms. Only very shortly before I saw him he had been staying with his brother, who thought him very bright and well. I think there must have been a rapid outbreak of carcinoma round the stone, and that ulceration and breaking down continued after the operation and rapidly enlarged the opening into the bowel. Such cases as these last two and No. 23 only emphasise the importance of quickly getting rid of a calculus when it is diagnosed, especially in cases in which there is any reason to fear the appearance of malignant disease.

CASE 28.—This case I have already more than once alluded to, in which I performed Abernethy's operation for tying the iliac artery in order to reach two small calculi which I knew were lying in the lower part of the urethra. I had never performed the operation before, but found it very simple, the ease with which the peritoneum and its contents can be safely pushed aside without fear of injury being remarkable, and the extent to which the whole pelvis is open to exploration shows that this operation may be very useful in some cases. I shall have shortly to record one fatal case operated on long ago in which, I think, this operation would have saved the patient's life.

CASE 29.—A married woman aged forty-eight, the mother of several children, a fine, robust-looking woman, with strong predisposition to gout, and suffering at times from gouty eczema, had been seeing me from time to time with her own medical attendant for several years complaining of deep-seated pain in the region of the left kidney. I from the first leaned to the view that it was a case of calculus, but the examination of the urine often repeated always gave negative results and there was nothing to make a diagnosis at all positive. Visits to Contrexéville failed to relieve, and at last it was decided that I should explore the kidney, and I then found—what had never been suspected or detected—a very mobile and displaced left kidney, but no stone in it. On proceeding to examine the right kidney I was surprised to find a small angular stone in its pelvis. The question now arose whether I should perform left nephrorrhaphy or right nephrolithotomy. The stone seemed to me the more serious ailment, and I think I was a little influenced by the hope that it might be a case of transferred pain, so I decided to deal with the calculus and leave fixture of the kidney for a future operation if the pain persisted. The patient made a good and quiet recovery from the nephrolithotomy, but with no relief to her old pain, and I have now just performed nephrorrhaphy with extreme difficulty, owing to the low position of the last rib and the amount of fat and well-developed muscle which had to be traversed. For the first time in the performance of this operation I was obliged to turn the patient half over on to her face, and then had to content myself with two sutures in place of the four I usually employ. When the patient was lying on her back the kidney

lay right across the abdomen on its back, so that I had great difficulty in bringing it into its proper position while I introduced the sutures. It is curious that with the many examinations I made I should never have detected the mobility of this kidney. The patient was, however, of large build, stout and muscular, and the kidney a decidedly small one. I shall wait her convalescence with much anxiety to see if the pain is at last banished. It is a very nice point as to which operation it was right to perform first. I think that, on the whole, my decision at the time was the proper one, although I was inclined to doubt it just after the operation.

(To be concluded.)

SEPTIC TONSILLITIS AN ACUTE SPECIFIC DISEASE.

BY STUART A. TIDEY, M.D., M.R.C.P. LOND.

THE experience accumulated during several years of hotel practice in Switzerland has led me to the conviction that the condition under consideration—to which I have been in the habit of applying the term "septic tonsillitis" or "septic throat"—has as strong a claim to rank as an acute specific disease as have scarlet fever, measles, diphtheria, mumps, &c. I should hesitate to submit the proposition that septic tonsillitis is an acute specific disease without the support of bacteriological evidence were it not that I can call to mind no acute specific disease which has depended on bacteriology for its differentiation. Each one has been differentiated originally on clinical grounds, and bacteriology has stepped in afterwards to stamp the disease with its trade mark of essential etiology. I will define septic tonsillitis, therefore, as an acute specific disease characterised by inflammation of the tonsils and fauces due to the inoculation of a specific poison and accompanied by a general toxæmic fever the result of absorption at the seat of inoculation. With regard to etiology, individual predisposing causes are constipation and a tendency to inflammatory affections of the fauces. Children and adults seem to be equally prone to fall victims to the disease. Newcomers in an infected district are more liable to the affection than the residents are, and the disregard of sanitary arrangements exhibited by local authorities is probably due to this fact. The origin of the specific poison is, in my experience, intimately connected with defective sanitation, and more especially with inadequate flushing of sewers and the stagnation and fermentation of sewage matter. The disease occurs with the greatest frequency at and after the most crowded seasons, when the air in the vicinity of the closets is palpably offensive; moreover, the attacks arise in inverse ratio to the extent of sanitary provision in individual hotels. In this connexion I would remark that on the lake of Geneva the disease receives the euphonious name of "white throat of the lake," whilst at Pontresina I have heard it spoken of as "Pontresina throat"—terms, be it observed, which serve to transfer the onus of specific etiology from the sanitary engineer to climatic influences, and which commend themselves to the public because the initial chill, which may occur on a glacier or other expedition, is regarded by them as the exciting cause and not as the first symptom of the disease, which it naturally is. I have reason to believe, moreover, that the disease is directly transferable from person to person, and that such a mode of origin is favoured by overcrowding and defective ventilation, conditions which are frequently fulfilled in the public rooms of the less spacious hotels during the season.

The symptoms of the disease are both local and general. The local symptoms consist of pain which commences at the seat of inoculation, generally one tonsil, and rapidly involves the entire fauces, causing dysphagia. The pain is frequently accompanied by a pricking and burning sensation of the soft palate. The general symptoms consist of headache, pains in the back and limbs, prostration, and constipation—the ordinary concomitants of toxic absorption. The local signs include enlargement of one or both tonsils, with infiltration of the soft palate and uvula and extension of the inflammation into the naso-pharynx. At first the fauces are uniformly bright red in colour and gelatinous in appearance, but there is rapid ulceration at the points of maximum tension of the tonsils, and the resulting ulcers form white patches of greater or less extent, sometimes involving the pillars of the fauces and soft palate. There is a copious secretion of mucus and muco-pus from the tonsils and naso-pharynx. The febrile reaction is of sudden onset. The temperature rises on the first or second day to its maximum, falls slightly for the next few days, and reaches the normal within a week, often falling on the fifth or sixth day to sub-normal. I have never known the disease to lead to any untoward result or to be followed by paralysis. The nearest allies of septic tonsillitis are scarlet fever and diphtheria. From the former it is distinguished by absence of rash and desquamation and by its more benign and rapid course. From the latter it is differentiated by its sudden onset, by the absence of false membrane or of marked toxæmic depression in spite of the severe local inflammation, and by its more rapid and benignant course and the absence of paralytic sequelæ. It is probable, however, that the statistics of diphtheria have been greatly marred in pre-bacteriological days by the inclusion of cases of septic tonsillitis which have gone to swell the tale of recoveries from the more fatal disease.

With regard to treatment, this must be both local and general, neither ceding in importance to the other, while hygienic surroundings and a nutritious dietary are essential. The speedy recovery of the patient depends in a great measure on the frequent cleansing of the fauces and naso-pharynx with antiseptic applications. If this is omitted or the patient comes late under observation there is great enlargement of the submaxillary glands, which leads to suppuration, besides prolongation of all the painful train of symptoms. I am in the habit of ordering a thorough application to the entire fauces every two or three hours, by means of a camel-hair brush, of one of the following preparations: glycerinum acidi carbolici and glycerinum acidi tannici, of each one drachm, water to one ounce; or listerine, one drachm, water to one ounce. Each application procures a free discharge of irritating mucus and results in immediate relief to the patient. The retching produced by mechanical irritation of the back of the tongue and fauces is of service in mechanically compressing the tonsils and so aiding in the expulsion of peccant matter. The glycerine stimulates a copious flow of mucus, the tannin contracts the tonsils and so promotes the same end, while the carbolic acid is anæsthetic as well as antiseptic. Listerine is a good local anæsthetic or antiseptic, but has not the same astringent and stimulating properties as have the glycerine and tannin together. It is a far more agreeable application. With regard to general treatment, early evacuation of the bowels is all-important, and I am in the habit of following it by the exhibition of a daily morning saline aperient, which secures greatly increased comfort to the patient and enables him to take iron and tonics without inconvenience. I am not partial to antipyretics of the coal tar series, but an initial dose of phenacetin in the case of a robust patient will relieve symptoms without producing marked depression. Salicylate of soda is useful where septic tonsillitis is associated with a rheumatic diathesis. Bitters, mineral acids, bark, and iron will, I think, be difficult to improve upon in the treatment of this affection, in common with other acute specific diseases, until advancing knowledge places at the physician's disposal a complete set of specific antitoxins. Then only will the importance of differential diagnosis outweigh that of expectant attention in the treatment of febrile disease.

In conclusion, I would suggest that some forms of septic pneumonia and pleurisy are manifestations of one and the same disease as septic tonsillitis. They occur under similar conditions of defective sanitation, but although almost unknown in Alpine stations where septic tonsillitis is common, they are of frequent occurrence and often lead to a rapidly fatal issue in large towns where climatic conditions favour intra-thoracic disease. I believe that staphylococci and streptococci are the predominating micro-organic forms which are common to the affection of the tonsils and to that of the lungs and pleura. The important difference in treatment is that in septic tonsillitis the disease can be attacked at the seat of inoculation, whereas in intra-thoracic disease the organism can only be sustained while it elaborates its antitoxins and marshals its leucocytes to do battle with the invading legions of inimical micro-organisms.

Florence.

POST-HEMIPLEGIC PARALYSIS AGITANS.

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AMONG the disorders of motion following upon hemiplegia, which are generically spoken of as post-hemiplegic chorea, there is one form in which the involuntary movements in the affected limbs closely resemble the tremor of paralysis agitans and have even in some few cases been mistaken for the shaking of that disorder. Buzzard[1] has related an interesting case of this kind, alluding to the possibility of mistaking such a condition for true paralysis agitans. In most of these cases where a necropsy has been made the lesion has been found situated, in part at all events, in the posterior part of the internal capsule, involving the optic thalamus, and the hemiplegia in such cases has been, as one would expect, accompanied by hemianæsthesia of the paralysed side. But the case of which I propose to give a brief account is not of this nature. It is a true example of paralysis agitans, and the interesting point arises as to whether the onset of the tremor after the stroke was a mere coincidence, or whether the cerebral lesion and the subsequently developed shaking palsy stood to one another in the relation of cause and effect.

The patient, a man aged fifty-six years, came under my care a year ago. Nearly seven years before he had been seized with right hemiplegia. This was complete and was accompanied at first by aphasia, which passed off in a few days. The complete paralysis of the arm and leg persisted for a considerable time and was accompanied, according to the patient's account, by loss of sensation of the same side of the body. About two months after the stroke, as power began to return, the right leg commenced to shake, and a fortnight afterwards the hand and arm became affected in the same way. This shaking had continued ever since and had become gradually worse until quite recently, but the tremor had at all events not increased during the few preceding months. So far the history is suggestive of post-hemiplegic chorea rather than of paralysis agitans, but the condition of the patient when he came under observation was conclusive as to the nature of the disease. The only distinct evidence of the pre-existing hemiplegia was persisting right facial paralysis. The grasp of the right hand was so weak as not to move the index of the dynamometer, that of the left being only twenty-five. There was no more contracture in the limbs than is customary in paralysis agitans and certainly no hemianæsthesia or hemianopia. The attitude was in itself almost pathognomonic. He stood bent forward and with head somewhat depressed, both arms flexed at the elbow and carried slightly abducted from the body. The fingers were in the interosseous position, and the continuous "pill-rolling" movement of the thumb and fingers of the right hand upon one another was well marked. When sitting down the heel kept up a continuous beating upon the floor. The nature of the tremor both in the arm and leg was very characteristic. It could be controlled for a short time by strong voluntary effort. The face was typical, the upper part being quite fixed and expressionless. When told to look up he raised his eyes and elevated the brows, the head being held stiffly and scarcely thrown back at all. The voice was characteristically monotonous and somewhat high-pitched. In turning round he moved "all-of-a-piece," turning the shoulders and pelvis simultaneously instead of shoulders first and pelvis afterwards, as in health. He walked with a short, rather quick, step and had a tendency not only to propulsion and retropulsion, which were both well-marked, but also to lateropulsion, as, especially on turning, he occasionally ran off unexpectedly towards the right. Voluntary movements were performed slowly and deliberately, and he had some difficulty in rising from a chair. He was at one time extremely restless, rising up and sitting down again at short intervals and requiring a constant change of position, but of late this necessity had become less urgent. He complained of always feeling chilly—a condition not so frequently met with in these cases as that of a subjective feeling of heat. The knee-jerks could only be elicited with great difficulty by the aid of Jendrassik's method of reinforcement, and were only just noticeable when obtained, the reflex on the right side being quite as difficult to produce as that on the left. I was able to satisfy myself that this was not due to muscular rigidity. It is certainly remarkable that there should have been no evidence of degeneration of the pyramidal tracts in a case of hemiplegia severe enough to cause total loss of power in the limbs for a period of two months; but the wrist-tap also produced no reflex, and there was no contracture which could be directly ascribed to the brain lesion. The amount of contracture in the arm was simply such as is met with in ordinary cases of paralysis agitans. At that time, although the disease had been in existence for nearly seven years, the tremor had remained almost unilateral. I say "almost," because there was very slight tremor in the left hand; and on the shaking of the right side being forcibly prevented the left-sided tremor became at once very apparent. In the spring of 1895 the patient had a severe attack of influenza, and since then he has grown rapidly worse. The tremor is now very marked on the left side, the left leg being affected nearly as much as the right, and the movements of the left hand, though not so violent as those of the right, are nevertheless very pronounced.

This is one of the best marked cases of paralysis agitans that I have seen. The diagnosis does not depend upon the tremor alone, but almost all the classical symptoms of Parkinson's disease are present, and (a very important fact from a diagnostic point of view) the tremor affects not only the originally paralysed side, but has spread to the other. It may be objected that the hemiplegia may have been a mere coincidence in this case and that without it the paralysis agitans would have developed. Intercurrent attacks of hemiplegia do occur in this disease, as in one of the original cases described by Parkinson,[2] but it is not surprising that this should be the case, as paralysis agitans is a disease of long duration and chiefly occurs at the time of life when cerebral hæmorrhage is most frequent. Why, therefore, should the converse not occur and a paralysis agitans supervene accidentally in the subject of a hemiplegia? This is of course conceivable and might well occur, but I do not think that in this lies the explanation of the present case. The relation between the hemiplegia and the succeeding paralysis agitans was so close, the tremor commencing as soon as slight power was regained in the limbs, and being, moreover, for seven years confined to the formerly paralysed side, that I have more difficulty in looking upon it as a coincidence than I have in accepting it as the cause of the condition. Again, it is well to remember that in those cases in which hemiplegia has occurred as an intercurrent complication the shaking has ceased whilst the paralysis has been complete, and has returned with increased violence as motor power has been regained. Notwithstanding these considerations, had my case stood alone I should have been prepared to admit that we might possibly have had to deal with a coincidence. But there are several cases on record which closely correspond with that here related, and it may be well to give a short abstract of these here. In one recorded by Westphal[3] a woman aged sixty years had a stroke, followed by left hemiplegia. There was also some loss of sensation on the paralysed side, which was still apparent when she was seen by Westphal four years afterwards, when she presented a typical picture of developed paralysis agitans, although the distribution of the tremor was somewhat unusual. The shaking had begun four weeks after the hemiplegia — first in the head, and spreading in a short time, first to the right arm and then to the left. The knee-jerk on the right side was much weakened, and was absent on the left. This Westphal ascribed to the marked contracture of the quadriceps extensor. Auerbach[4] records a case which is almost the counterpart of mine. A man aged fifty years awoke one morning with left hemiplegia. There was, however, no involvement of the face and no anæsthesia, although there was a feeling of numbness in the left thigh which lasted for two years. Motor paralysis was complete for nine months, then slight ability to move the paralysed limbs gradually returned, and, coincidently with this, tremor began in the left arm. In a few months the left leg became affected. About eight years afterwards the shaking extended to the right arm and shortly afterwards to the right leg. When Auerbach saw the patient ten years after the hemiplegic attack the head

[1] Lectures on Diseases of the Nervous System, p. 348.

[2] Essay on the Shaking Palsy, p. 15.

[3] Charité Annalen, vol. iv., p. 408.

[4] Berliner Klinische Wochenschrift, 1882, p. 35.

and under lip had just become involved in the tremor. Other symptoms, marking the case out clearly as one of paralysis agitans, were present. These were, briefly, profuse perspirations, characteristic position, restlessness necessitating getting up and sitting down again every few minutes, fixed and expressionless aspect of the face, power of control of the movements for a very short time by a strong effort of the will, and stiffness of the muscles at the back of the neck with marked hindrance to both passive and active bending back of the head. It is needless to say that the character of the tremor was typical. The patellar reflex was present on both sides, that on the left being more marked than that on the right. Grasset[5] also briefly records a case of what he calls "hémiparalysis agitans post-hémiplégique," in which there was tremor at rest in the affected side, sensation of heat, and "soldering" of the head and neck. This is, however, not a typical case, and no indication is given as to the period which had elapsed between the onset of the hemiplegia and the time of the patient's coming under Grasset's observation. Excluding this case as doubtful, we have here three cases, including my own, in which true paralysis agitans supervened immediately upon (presumably) cerebral hæmorrhage, and this renders the acceptation of a theory of coincidence infinitely more difficult. We seem to be forced to the conclusion that the cerebral lesion stood in a causal relation to the subsequent phenomena. Granting, then, that these are true cases of paralysis agitans, and that the hemiplegia acted as the immediate cause of the development of the malady, are we justified in concluding that the tremor and other symptoms were due to the anatomical site of the lesion? Auerbach answers this question in the affirmative, arguing analogically from those cases already referred to in which post-hemiplegic tremor resembling that of paralysis agitans was found post mortem to be associated with hæmorrhages in the optic thalamus, nucleus caudatus, and posterior part of the internal capsule. But he omits to mention that in none of these cases was there any spread to the opposite side of the body, and in none of them were there symptoms of paralysis agitans properly so called. Neither in his case nor in mine, at the time when the patients came under observation, was there any hemianæsthesia, which had been present in the subjects of the necropsies. He admits this to be a difficulty, and suggests as the possible explanation that the lesion in his case may have been in the pons, and considers that the close proximity of the motor tracts of both sides in this situation may have accounted for the subsequent spread of the tremor to the opposite side. In the absence of any post-mortem anatomical evidence we can only speculate as to what is most probable, and I must confess that this explanation of Auerbach's is unsatisfactory to my mind. I think it much more likely that the *rôle* played by the cerebral lesion in these cases was simply that of a determining cause in subjects already predisposed. There are many cases on record in which the shaking followed immediately upon a shock of some kind, physical or emotional. Even a slight injury often seems to play the part of the immediately determining cause of the tremor, or, at all events, it determines the part in which the earliest symptoms shall manifest themselves. Thus Handfield Jones[6] had a case in which the right arm began to shake after the patient had been knocked down by a blow on the right shoulder. Charcot[7] records several similar cases. In one the tremor began in the left leg after a bruise to the thigh. At first occasional, this became permanent, and finally extended to the other limbs, whilst other symptoms of paralysis agitans developed. In another case the tremor followed a sprain of the left ankle before the pain and swelling had subsided; it began in the left foot and spread to the other limbs, other symptoms being well marked. I have myself had a case in which the patient had somewhat severely strained the shoulder of the arm first affected shortly before the tremor began. But it is useless to multiply instances of a well-known fact, and I merely mention here cases in which mental shock, such as the sudden violent death of a friend,[8] or even the loss of a five-pound note,[9] have been sufficient to start the tremor which has subsequently proved to be that of paralysis agitans. Such comparatively slight shocks being capable of acting in this way, it is not surprising that the profound shock of a cerebral hæmorrhage, wherever its situation, should, given the necessary predisposition, bring about the same series of phenomena. And just as in an ordinary person a blow on a limb or a mental shock is not followed by these consequences, so in the ordinary cases of hemiplegia no such condition results, even in those where, from the site of the lesion, a tremor resembling that of paralysis agitans is set up. The commencement of the manifestation of the disease in the paralysed limbs also corresponds to the history of cases following external trauma, and it is not surprising that the parts controlled by the cortex of the damaged hemisphere should be first affected. I do not propose to enter here into the problem of the pathology of paralysis agitans, but merely suggest that such cases as these which follow immediately upon an internal or external trauma support the view that the essential change is a nutritional one of the higher (cortical) motor centres; for it is hard to understand why, if any of the various forms of gross organic lesion which have been described by various observers be the essential element in the production of the symptoms, they should remain inert as causes until called into play by such trifling causes as those mentioned above; whilst, on the other hand, it is quite conceivable that, given an already lowered condition of nutrition of the cortical centres, a comparatively slight cause might still further lessen their control over the lower motor centres, and thus allow of the first manifestation of the tremor. A cerebral hæmorrhage would be particularly likely to do this on the side of the brain on which it occurred, and this, I suggest, is the explanation of these cases of post-hemiplegic paralysis agitans.

Manchester-square, W.

[5] Progrès Médical, 1880, No. 46.
[6] Brit. Med. Jour., 1873, vol. i., p. 221.
[7] Leçons sur les Maladies du Système Nerveux, 4th edition, tome i., p. 185.
[8] Charcot: Loc. cit., p. 183.
[9] Atkins: Journal of Mental Science, 1881-82, p. 535.

CASE OF ORDINARY OBLIQUE FRACTURE OF TIBIA AND FIBULA,

COMPLICATED WITH COMMINUTED FRACTURE OF THE NECK OF THE FIBULA; EXCELLENT RECOVERY FOR FIVE WEEKS; THEN EVIDENCE OF HÆMORRHAGE AND PROBABLE INJURY TO ANTERIOR TIBIAL ARTERY; AMPUTATION OF THIGH; RECOVERY.

BY JOHN B. FRY, L.R.C.P. LOND., M.R.C.S. ENG.

A MAN aged sixty-seven years, while unloading hay from a cart, on March 2nd, 1894, stepped backward on to the loose tailboard, which tilted, bringing him to the ground with considerable violence. I found an oblique fracture of the tibia and fibula at the junction of the middle and lower thirds, with much displacement, the upper fragment of the tibia projecting nearly through the skin. There were considerable ecchymosis and bruising of the skin, but only over the seat of fracture. The man was at once sent to the Cottage Hospital, Thames Ditton, where I put the leg in Cline's splints. With the exception of a good deal of trouble caused by extravasation of blood and formation of bullæ, which left superficial sores, he apparently made an excellent recovery. The leg was placed in a water-glass bandage, and he left the hospital at the end of five weeks free from all pain and swelling and able to move about by the aid of crutches. Ten days later he complained of great pain in the upper part of the front of the leg, which, however, lasted only half an hour. On the following day, he having had another attack of pain of the same character before I saw him, I cut off the bandage and sent him to the hospital. A swelling was now noticed on the external aspect of the leg between the tibia and fibula, and slightly below the level of the tubercle of the tibia. It had a circumscribed glazed appearance, and was of the size of half an orange. The patient complained of no pain, and no pulsation could be detected, but as there was well-marked fluctuation it was thought to be a superficial abscess. On opening it pus escaped, followed by small clots, and copious bleeding occurred which could only be controlled by pressure of the femoral artery. With the assistance of Dr. Lyons and Dr. Senior I amputated the leg above the seat of the swelling. The whole of the parts were found ploughed up and macerated by effused blood. The destruction of tissue being so evident, it was thought prudent to amputate higher up; accordingly I adopted the

circular method at the junction of the middle and lower thirds of the thigh. The greater part of the wound healed by first intention, and in a short time the whole had granulated up, and the man left the hospital on May 30th. Examination of the amputated leg revealed a severe comminuted fracture of the neck of the fibula in which there was not the slightest attempt at repair, the fragments lying loose in the macerated fibres of the surrounding muscular tissue. The posterior tibial vessels were uninjured and free from atheroma, but on following the anterior vessels it was at once seen that they were the source of the bleeding, although owing to the disorganised condition of the muscular tissue they were traced with difficulty. In close proximity to them were several small splinters from the fibula, but it was quite impossible to determine which fragment had injured the vessels. There was a large extravasation of blood in front of the interosseous membrane lying amongst the degenerated and destroyed fibres of the tibialus anticus and the extensor muscles of the toes. The hæmorrhage had also extended backwards in the muscles under the gastrocnemius and soleus, but had not destroyed the tissues to the same extent as in front. It did not extend as far as the fracture of the tibia and fibula, which was found firmly united, but had almost reached the limits of the popliteal space above.

Remarks.—The case at first appeared to be a simple one of fracture of tibia and fibula, and it was not until nearly seven weeks after the accident that any further symptoms developed. The injury at the neck of the fibula took place at the same time as the fracture below, but there may be some doubt as to whether the anterior tibial vessels were injured at the same time, or the artery perforated or ulcerated by the movements of the patient after leaving the hospital.

Esher.

THE TRANSMISSION OF DIPHTHERIA BY NON-SUFFERERS.

BY HERBERT PECK, L.R.C.P. EDIN., D.P.H. CAMB.,
MEDICAL OFFICER OF HEALTH TO THE ORMSKIRK RURAL DISTRICT COUNCIL.

THE following series of cases is of interest as showing the possibility of the conveyance of the diphtheria poison by persons who do not themselves suffer from the disease.

HOUSE A.

CASE 1.—A man aged forty-five years began to be ill on Oct 4th, 1894. The case was typical and was followed by double "drop-wrist." No other person in this house suffered from sore throat.

HOUSE B.

This is half-a-mile distant from House A. There was no communication between the houses till Dec. 26th, when the occupier began to work for the preceding patient.

CASE 2.—A child aged seven years and a half had a sore-throat on or about Jan. 2nd, 1895. The case was a typical one, followed by paralysis of both legs. The patient died from cardiac syncope.

CASE 3.—A child aged four years began to be ill on Feb. 6th. This was a typical case and resulted in death from asphyxia.

CASE 4.—A child aged twelve years had a sore-throat on Feb. 16th. The case was typical and was followed by dimness of sight and strabismus. Bacteriological examination of cultures from the throat showed the presence of large numbers of diphtheria bacilli.

HOUSE C.

This farmhouse stands on a peat-moss and is one mile and a quarter distant from Houses A and B.

CASE 5.—A youth aged eighteen years, brother of the last three patients, worked here from Jan. 15th. His mother stated that he was at home for a few minutes on the days his sisters were buried, but at no other time. He himself admitted having been home on each Sunday to change his shirt, which he did in the room occupied by the patients. He stated that he did not suffer from sore-throat at any time, but bacteriological examination showed typical diphtheria bacilli in large numbers to be present in his throat. There is no history of his ever having had diphtheria.

CASE 6.—A youth aged eighteen years began to be ill on Feb. 26th. He worked on the same farm as the last youth and slept with him. He went home to House D on the 27th, being then "full of cooth" and suffering from sore-throat, and unable to work. Typical diphtheria bacilli were present in great abundance on March 15th.

HOUSE D.

This is a mile and a half distant from House C, two miles from House B, and two miles and a half from House A.

CASE 7.—The patient was a boy aged thirteen years, who slept with the last patient, his brother. He came home from chapel on March 3rd, complaining of sore-throat. On the 8th he was seen for the first time by his medical attendant, and was then dying. No bacteriological examination was made.

CASE 8.—A child aged three years, sister of the last two patients, began to be ill on March 12th. The case was a typical one, and an abundance of typical diphtheria bacilli was found on bacteriological examination.

Remarks.—House B was probably infected by the father of the family, who himself did not suffer from the disease. His son (Case 5) did not suffer from the disease, though he was proved to have its germs in his throat, but he was the means by which it was carried to House C, whence it was taken to House D.

Ormskirk, Lancashire.

ON SO-CALLED GOUTY PSORIASIS.

BY T. FREDERICK PEARSE, M.D. BRUX., F.R.C.S. ENG.

PSORIASIS occurring for the first time in or after middle life presents distinctive characters and requires different treatment to psoriasis occurring in the young. Most writers divide psoriasis into syphilitic and non-syphilitic. Leaving aside syphilitic eruptions of a scaly nature (to which the term "psoriasis" is incorrectly applied for a scaly syphilide), I wish to draw attention to some differences in the cases of what are termed true psoriasis. There are roughly two chief varieties: (1) the psoriasis of the young, and (2) the psoriasis of the gouty. This distinction was first pointed out by Liveing. The former variety is characterised by occurring generally before puberty, by attacking the extensor surface of the limbs, by the scales being numerous and thick, by the almost entire absence of itching, by the absence of any eczematous eruption or history of it, by being symmetrical, and by the effect of treatment. The latter variety never commences in childhood and rarely before middle age; there is generally a history of gout in the patient or in his family. It does not affect the extensor more than the flexor surface; the itching is considerable, the patches are thin, not very scaly, and the scales are small and easily rubbed off. The eruption is scattered irregularly over the body and may be said to show a disregard for symmetry. Moreover, it has a great tendency to be complicated with undoubted eczema, and sometimes assumes an inflammatory aspect almost passing into eczema. It is often made worse by the ordinary applications for psoriasis. These patients bear arsenic badly, and stimulating fluids and highly seasoned articles of food, as well as sugar, affect the eruption unfavourably. This form in some cases alternates with acute attacks of gout, and in others seems to be suspended by them. At times the eruption develops very rapidly, even in a night. Under "gouty" remedies it often rapidly disappears—much more rapidly than psoriasis ever does in the young. The treatment most successful is the free use of liquor potassæ internally, with perhaps the addition of quinine. The addition of colchicum, however, is sometimes of great service. These patients require the ordinary routine and dietary for gout. They generally require to drink more water, and alkaline waters taken freely are especially to be advised. As the skin acts feebly in many gouty persons, bathing frequently is desirable, and warm baths may be recommended. The diet should be plain, and fish or white meat should be preferred to beef or mutton. Plenty of fruit and vegetables are desirable, but the more complete the avoidance of wine, beer, or spirits the better. Clinically, this variety is closely allied to dry eczema. Its appearance is similar and the itching in both cases is marked. Contrary to true psoriasis, it is not symmetrical and does not attack the same parts. What is its pathology? Is it a true psoriasis occurring in the gouty and modified in its clinical characters by the gouty state, or does gout have a psoriasis-like eruption

as one of its manifestations? I believe the latter is the correct supposition. The facts that the eruption in these cases occurs for the first time late in life, that it has not the same clinical characters as the psoriasis of the young—the true psoriasis—and that it yields to totally different treatment, incline me to classify it as a distinct disease of the skin from psoriasis. The same anatomical changes are often brought about by different ways, and the scaly eruptions resembling psoriasis must be differentiated from it. If there is a psoriasis-like eruption in a syphilitic subject, it should not be called "psoriasis," but "syphilis," and a similar kind of eruption occurring in the gouty should not be termed "gouty psoriasis," but "gout." Psoriasis as a name for a distinct disease should be reserved for that scaly eruption of the young which constituted the first variety. The underlying cause producing its external manifestations is not known. In its clinical character it varies considerably in different cases, and it may possibly before long be capable of further sub-division.

Southsea.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

HEREDITARY CONGENITAL NYSTAGMUS.

By F. W. BURTON-FANNING, M.B. CAMB., M.R.C.P. LOND.,
PHYSICIAN TO THE NORFOLK AND NORWICH HOSPITAL AND TO THE JENNY LIND INFIRMARY FOR SICK CHILDREN, NORWICH.

THE following history was obtained from the father of a child brought to the Jenny Lind Infirmary for Sick Children, Norwich, with marked nystagmus, and I wish to record it in conjunction with the recent publications of Dr. George Dickson[1] and Dr. Angus McGillivray,[2] and that of the late Dr. Hadden.[3] The grandparents of the first generation lived to an old age and had no ocular abnormality. There were seven children as follows:—(*a*) Male, who had constant nystagmus from birth to his death, which occurred at the age of twenty-four from an accident. (*b*) Female, who was unaffected and died from poisoning aged eighteen years. (*c*) Male, in whom nystagmus remained constant all his life; on fixing his attention he also manifested head-nodding, which disappeared during repose. He died aged twenty-four years from phthisis, leaving four children. (*d*) Male, who had nystagmus at the age of forty-two years as marked as at birth. (*e*) Male, who was unaffected. (*f*) Male, who had constant nystagmus; he has had seven children. (*g*) Male, who had nystagmus in a most marked degree; head-nodding also, except during repose. He had one child. As to the third generation, C's family of three girls and one boy had no nystagmus, but one girl's head shook when excited. F's family consisted of three daughters and four sons; nystagmus was present in all the girls, though one at the age of eight years was improving. The four boys were unaffected, but all died between the ages of seventeen months and four years; two from convulsions, one from imperforate anus, and one from diarrhœa and dentition. G's boy died aged seven weeks, and I cannot ascertain if he had nystagmus. Here then we meet with oscillation of the eyes occurring in five members of a family of seven whose parents and other relatives had presented no such peculiarity. Of these five three married and had altogether twelve children, three of whom had definite nystagmus and a fourth a tendency to head-nodding. The liability of the two sexes was almost equal in this family, for, of eleven boys, five had nystagmus, and of seven girls three had it. I have had the opportunity of examining five members of this family; in all the nystagmus was horizontal only, it was slow during repose and became more rapid when the eyes were fixed on any object or when the person was excited. Their complexions were mostly dark, their vision and ophthalmoscopic appearances normal, and their general health good. My informant discovered this "jumping" of the eyes within a few hours of birth, and was convinced that the affection diminished in intensity as the child grew. To my mind this hereditary oscillation of the eyes, with or without movement of the head, seems most allied to hereditary tremor of the limbs and head.

Norwich.

[1] THE LANCET, Oct. 5th, 1895.
[2] Ophthalmic Review, August, 1895.
[3] THE LANCET, June 14th, 21st, and 28th, 1890.

A HEAVY FŒTUS.

By W. WOODWARD, L.R.C.P. LOND., M.R.C.S. ENG.

ON Nov. 29th, 1895, I was called to see a married woman of robust constitution, who, the midwife said, had been in strong labour for twelve hours, but "nothing seemed to shift. The waters," she added, "had come an hour previously." I found, per vaginam, the head to be high up in the first position and the os fully dilated. The patient was bearing the labour well; but as the head did not appear to move, though the pains were frequent and strong, I applied forceps. In an hour and a half the forceps were taken off, the head being now well down on the perineum. During its passage the mother had cramping pains in the legs, but these were neither more continuous nor more severe than is common in ordinary cases. The head was born in twenty minutes more without injury to the perineum. Then for about another twenty minutes the shoulders refused to move. Traction on the axilla effected nothing, so I pulled down the left arm and the child (a female) followed, but slipped out slowly, fully dilating the maternal outlet. The infant had vomited three times a fluid resembling liquor amnii and was becoming cyanosed before I interfered. It seemed, therefore, necessary to risk the perineum in order to save the infant. After delivery the latter lay flaccid, the cord feebly pulsating, but the escape of about one ounce of blood from the cut cord restored her, and her cries were comforting to hear. The rest of the labour gave no trouble. When the mother was comfortable the child was weighed. Two separate and distinct pairs of scales registered her weight as 11 lb. 10 oz. before she was washed. Both mother and child were doing well.

Wilton, Wilts.

CASE OF SLOW PULSE (BRADYCARDIA) EVIDENTLY DUE TO SIMPLE CONSTIPATION.

By M. M. BOWLAN, M.B. DURH., D.P.H. CAMB.,
MEDICAL SUPERINTENDENT OF THE WORKHOUSE INFIRMARY, ST. GEORGE'S-IN-THE-EAST.

THE interesting article by Dr. A. Morison on the Causes of Bradycardia which appeared in THE LANCET of Nov. 23rd is my excuse for submitting the following short note. A woman aged twenty-five, well nourished, was admitted to St. George's-in-the-East Infirmary on Jan. 13th, 1892, with a history of constipation and occasional vomiting after food. There was no history of alcoholism or dietetic error, and there was no history or sign of lead poisoning. There was no hernia or any sign of organic intestinal obstruction. She looked gloomy, complained of headache, and had a dirty tongue and foul breath, but all her organs appeared to be healthy. Her heart, however, though otherwise normal, was only beating at the rate of 48 per minute. She was given five grains of calomel on admission, but was not purged. On Jan. 14th the house mixture, sulphate of magnesia and senna, was given, but without effect upon the bowels. She was still sick occasionally after food. The pulse was still slow. On Jan. 16th the pulse-rate was 48 per minute. The patient was still constipated. On the 19th one ounce and a half of castor oil was administered. On the 20th the bowels acted well. A magnesia and sulphate of sodium mixture was ordered thrice daily. On the 21st the bowels were freely opened. The patient looked brighter and expressed herself as feeling better. The pulse was now 76 per minute, the patient being recumbent, and continued normal till her discharge on Feb. 3rd, since which time she has not come under my observation.

This case was regarded as due to the absorption of poisonous, effete, and fermentation products from the intestinal tract (whether ptomaines, leucomaines, or what not), and treated accordingly. There was no marked abdominal distension and very little vomiting, so that any local mechanical theory was out of the question.

Raine-street, E.

COMPOUND FRACTURE OF THE NECK OF THE SCAPULA AND SIMPLE FRACTURE OF THE SHAFT OF THE HUMERUS BELOW THE INSERTION OF THE DELTOID.

BY F. A. A. HOLMDEN, M.D., M.S. EDIN.,
SURGEON-CAPTAIN, BECHUANALAND BORDER POLICE.

ON June 27th, 1895, a trooper was riding on the front of a regimental transport in N'gamiland, and when trying to step off slipped to the ground, falling on his back, the front wheel passing over the shaft of the right humerus and shoulder. I examined him a few minutes after the accident occurred, and found there was marked projection of the acromion, and a considerable interval between it and the head of the humerus. The deltoid was flattened, the limb had sunk into the axilla, and the coracoid process was movable and at a lower level than that of the opposite side. Crepitus could be produced. There was also a wound on the back opposite the shoulder-joint, which was caused by a stone in the sand. When the probe was used the injured part was found to communicate with the fractured neck of the scapula. The humerus was also fractured below the insertion of the deltoid. The following was the treatment adopted. The wound at the back of the shoulder was syringed with an antiseptic and dressed with iodoform. I applied an angular internal splint from the axilla to the wrist, fashioned so as to project a little below the elbow. The axillary end of the splint was shaped and padded so that it would principally support the anterior and posterior axillary borders, thus avoiding pressure on the vessels. Three short splints were placed on the other sides of the limb. The angular splint was now pushed well up into the axilla, and the four splints were bandaged to the limb; and then, after binding the arm to the side with a broad bandage, a sling was applied well supporting the projection of the angular splint at the elbow, as well as the forearm, which was kept midway between supination and pronation. When seen on Sept. 28th the patient had made an excellent recovery without deformity and had returned to duty.

Bechuanaland Border Police Camp, Kgontsa, N'gamiland.

NOTES ON A CASE OF LYMPHADENOMA; EFFUSION INTO THE RIGHT PLEURA; PRESSURE ON THE RIGHT BRONCHUS.

BY CHARLES W. CHAPMAN, M.D. DURH., M.R.C.P. LOND.,
PHYSICIAN TO THE NATIONAL HOSPITAL FOR DISEASES OF THE HEART, SOHO-SQUARE.

THE following case may be read in connexion with a very instructive one reported by Dr. H. Sainsbury in THE LANCET of Nov. 30th, 1895.

Seventeen years ago I was suddenly sent for to see a man who had great difficulty in breathing. On my arrival I found the patient very anæmic and with an anxious expression. The history was, briefly, that he had been in the Australian bush for about four years, and that his health had been failing for two years, during which latter period his glands had gradually become enlarged. He had returned to England to put himself under the care of Sir William Jenner who had, I think, only seen the patient once or twice before I was called in, and in a consultation the same evening Sir William Jenner told me there was no evidence of fluid in the chest when he examined it a few days before. On examination there was general lymphadenoma, with urgent dyspnœa, and the right chest was airless and full of fluid. It was resolved to tap the chest, which I did with a small trocar, but only about two drachms of fluid came away. On a second consultation Sir William Jenner questioned my having entered the pleural cavity, or, even if I had, that the cannula was too small. I accordingly used an abdominal trocar, but with no better result. The patient died the following day. At the post-mortem examination, not only was there pressure on the large veins sufficient to account for the effusion, but the right bronchus was so compressed as to prevent the ingress of air into the lung. Both punctures were seen to be into the pleural cavity, so the dryness of the tapping was owing to the physical conditions within the chest, which, though different from those found in Dr. Sainsbury's case, had a similar effect in not permitting withdrawal of the fluid; there was "no vent" whereby the air could enter.

Weymouth-street, W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

CHARING-CROSS HOSPITAL.

TWO CASES OF TYPHOID FEVER, BOTH COMPLICATED BY HÆMATEMESIS, AND ONE BY HÆMORRHAGE; ONE RECOVERY; ONE DEATH.

(Under the care of Dr. GREEN and Dr. J. GALLOWAY.)

INTESTINAL hæmorrhage in the course of typhoid fever is not infrequent, but it is rather difficult to estimate the percentage of cases in which it occurs. One way of estimating it is by taking the percentage of those known to have suffered from it in a certain number of fatal cases, as was done by Hölscher, who found a history of intestinal hæmorrhage in 5 per cent. This, of course, gives but an inadequate idea of its prevalence, for many patients subsequently recover. "Hæmorrhage from the bowel in enteric fever occasionally coexists with hæmorrhage elsewhere, such as epistaxis, hæmoptysis, hæmatemesis, hæmaturia, bleeding from the gums, and purpuric spots, and then the disease has been designated 'hæmorrhagic putrid fever.'"[1] In both the present cases there was vomiting of blood, which was probably dependent on a congested condition of the mucous membrane of the stomach. For the notes of these cases we are indebted to Mr. William Escombe, house physician.

CASE 1. (*Under the care of Dr. Green.*) *Typhoid fever; hæmatemesis; hæmorrhage; relapse.*—The patient, a female aged twenty-three years, was admitted to hospital on Sept. 21st, 1895. Her temperature was 101° F. Her illness commenced with headache and pains on Sept. 10th. Her condition on admission was as follows. She was lying on her back; her cheeks were rather flushed, and her expression was somewhat vacant; she was quite conscious, and her memory was good. Her pulse was 104 and dicrotic. The tongue was furred down the centre; the tip and edges were clean. Her abdomen was somewhat distended; there were a few spots typical of typhoid fever. The spleen was easily palpable. The heart and lungs were normal. The urine was highly coloured and clear, and the specific gravity was 1014; there was a large trace of albumin. On Sept. 22nd the patient complained of pain in the left thigh. On examination some œdema of the left leg was found; the upper part of the left thigh was red and tender, and a cord could be felt in the course of the femoral vein. There was slight diarrhœa and the stools were typically "typhoid in character." The fever ran a normal course after this until Sept. 27th, when some blood was passed in the stools. On the following day, at 1 P.M., the patient had an attack of hæmatemesis; the blood was dark-coloured, but was not measured as it was vomited into the bed. This was followed one hour and a half afterwards by a second attack; the blood was of the same character as before and measured two ounces. The patient was treated with a hypodermic injection of morphia; all food was ordered to be fully peptonised, and one drachm of the saccharated solution of lime was added to each five-ounce feed. She was also ordered ice to suck. The pulse was 120, and the temperature remained high. For the next twenty-four hours the motions were black and tarry in character, but there was no more hæmatemesis. Subsultus tendinum was well-marked, and there was distinct tremor in both hands. There were also dulness and numerous râles at the base of both lungs. From now onwards the temperature fell steadily, but the patient was very weak and was kept upon hypodermic injections of liquor strychniæ, two minims every eight hours, and brandy, four ounces. Ten-grain naphthaline pills, three times in the day, were employed as an intestinal antiseptic. There was no more hæmatemesis or hæmorrhage, but for two consecutive days large erythematous patches lasting about twenty-four hours appeared

[1] Murchison: Continued Fevers, p. 527.

over the chest and abdomen. The thrombosed femoral vein cleared up with no further trouble. Unfortunately, the patient had a severe relapse lasting over twenty-four days, but during the whole of this time she had no bad symptoms and has since made an uninterrupted recovery.

CASE 2. *(Under the care of Dr. Galloway.) Typhoid fever; hæmatemesis; death.*—The patient, a man aged twenty-eight years, was admitted to hospital on Aug. 29th, 1895. His temperature was 101° F. His illness commenced with headache and shivering on Aug. 16th. The patient lay on his back; his face was flushed; the skin was hot and moist. The pupils were slightly dilated. The pulse was 104. The tongue was coated with white fur in the centre; the lips were covered with sordes. The abdomen was uniformly distended; there were spots typical of typhoid fever. The spleen could not be felt owing to muscular rigidity of the abdominal wall. There was tenderness over the right iliac fossa. The heart and lungs were normal. The specific gravity of the urine was 1012, acid, with a large trace of albumin. There was slight diarrhœa of a greenish colour, loose, and offensive; no undigested milk appeared in the stools. The illness ran a normal course until Sept. 1st, when the patient had a distinct and well-marked rigor at half-past nine in the evening; the pulse was 120 and the respiration 24. This was followed by another rigor on the following day at 4.30 P.M.; the pulse was 160 and the respiration 32. There were no physical signs of pneumonia. The diarrhœa continued and was checked by enemata of opium. The patient continued to get weaker, but took all his food well, with occasional slight retching, but no vomiting, until the 7th, when a very troublesome hiccough set in and lasted almost continuously until his death. The pulse became more frequent and running in character. On Sept. 10th vomiting commenced, and the patient brought up blood of a dark-red colour; much of the blood could not be measured, as it was in the bed, but three ounces were actually measured. He became unconscious and died on Sept. 11th.

Necropsy.—The deep ulceration was entirely in the lower end of the small intestine, none of the sloughs having separated; the upper part of the small intestine was ulcerated superficially. The mucous membrane of the stomach was much congested, and on the posterior surface at the pyloric end twenty or thirty petechial spots were visible. There was no evidence of old or recent ulceration. The œsophagus was healthy. There was no ulceration of the larynx.

ROYAL SOUTH HANTS INFIRMARY.

HISTORY OF A CASE OF A TAMARIND STONE IN THE RIGHT BRONCHUS; NECROPSY; REMARKS.

(Under the care of Dr. A. B. WADE.)

THE record of the treatment of a case of foreign body when impacted in a bronchus is always worth reading, and when there are also unusual features presented it is additionally interesting. It is unfortunate that the result in the present instance was fatal, but the case is possibly more important to the profession on account of the emphasis which is thus laid on the necessity of keeping open the tracheotomy wound until the body has been expelled. The condition of the lung, as met with at the post-mortem examination, was that usually resulting from the impaction of a foreign body in the bronchus, and it by no means follows that the child would have recovered from this even if the foreign body had been successfully expelled. Although the collection of a large number of cases gives statistics on this subject, still the prognosis must vary so much in individual cases that they can be of little practical utility. All the bodies impacted in this situation are not of the same size or shape; neither are they of the same material, varying as they have done from the steel blade of a tooth forceps to the foreign body in this case, and the size of the bronchus has varied from that of the adult downwards. Some of the substances impacted are early acted on by the secretions of the part, whilst others are affected only after a long time or not at all. For the notes of this case we are indebted to Mr. W. P. Purvis, F.R.C.S., house surgeon.

A little boy aged five, who had always been thoroughly healthy, was admitted to the Royal South Hants Infirmary, under the care of Dr. Wade, on April 23rd, 1895. A quarter of an hour before he was brought to the hospital he had been eating tamarinds, and was seized with an attack of coughing and choking, which his mother supposed to be due to a stone having stuck in his throat. On admission he had constant and spasmodic cough and a little inspiratory stridor. A large quantity of frothy mucus was secreted. Nothing could be seen or felt in the fauces or larynx. On auscultation it was found that no air was entering the right lung. On being laid down upon the bed he breathed quite easily and showed no distress. During the evening he passed a tamarind stone in a stool, but this only pointed to the fact that he had not been careful about the stones. For the benefit of those who may not recall the exact appearance of a tamarind stone, it may be remarked that, though the West Indian are not quite the same, the East Indian are of a stony hardness and a red colour. In size they vary from one-third to one-fourth of an inch in diameter. They are flat and circular, and about three-sixteenths of an inch thick. Each is enclosed in a tough fibrous husk. On April 25th no air entered the patient's right lung, and the heart was drawn over to the right side, its impulse being felt over a somewhat wide area between the sternum and the right nipple. He had very little cough. His temperature, which had been normal, suddenly ran up to 102·6° F. Under chloroform Dr. Wade performed a low tracheotomy and made search for a foreign body which was presumably impacted in the right bronchus. This might have been either the hard stone or its fibrous husk. Nothing could be felt, and the excursions of the trachea and the reflex cough when the mucous membrane was touched by instruments were very embarrassing to the operator. Inversion was also tried, but without result. A Durham's tube was inserted. On the 28th the temperature was still 100° to 102°. The wound was healthy. The heart seemed to be going back to its normal position. On the 29th the temperature was 101°. The apex-beat was in the normal situation. The patient did not seem to be quite so well. The whole of the right side of the chest was dull on percussion, and there was very loud tubular breathing all over it except at the base behind. On the 30th the silver tube was exchanged for a rubber one, and the patient was very comfortable with it. The temperature was 102·6°. On May 6th the temperature was 98° in the morning, having been 102 2° the evening before. The patient's general condition was not so good. The physical signs were unchanged except that from the front a little air seemed to enter the upper lobe of the right lung. Another attempt to remove the stone on this day was as unsuccessful as the last. No foreign body could be felt at all. Liberal brushing of the trachea with a 20 per cent. solution of cocaine failed to stop the cough reflex. On May 25th the patient seemed to be better in himself, and a little air seemed to enter the right lung. It was not quite so dull as formerly. Since the last date his temperature had been normal or subnormal in the morning, running up to 102° or 104° (105° on one occasion) every night. He had emaciated greatly, but was beginning to pick up again. On the 28th the tracheotomy tube was removed (thirty-sixth day). On the 30th the patient's weight was 2 st. 1 lb. He got up for the first time and continued to do so. On June 7th his weight was 2 st. 4½ lb. The tracheal wound was quite healed. He seemed to be much better, and his temperature did not rise so much at night. On the 13th his weight was 2 st. 4½ lb. On the evening of that day his temperature reached 104°, but he seemed to be about as well as usual, and the physical signs were unchanged. On the 14th (fifty-third day), about 2.15 A.M., he suddenly awoke from sleep, coughing and choking. Mr. Purvis was immediately summoned and lost no time in repairing to the ward. He found the patient pale and with staring eyes. The patient gave a few gasps, but no air entered his chest. By the time Mr. Purvis had reopened the old wound the patient had ceased to breathe and his heart could not be heard. Artificial respiration was performed for some little time, but without avail.

At the post-mortem examination on June 14th, at 2.30 P.M., the body was found to be somewhat wasted. The bean lay impacted just below the cricoid cartilage, filling the trachea from there down to the tracheotomy wound. The mucous membrane of the right bronchus was reddened and slightly softened, but there was no ulceration. The diameter of the tube was markedly greater than that of the left, and the stone had evidently been impacted at about the middle of its length. The right pleura was obliterated, with soft, recent adhesions. The lung was large and completely solid. On section several points of pus appeared, which were the cut ends of bronchioles, the latter being

distinctly dilated. The stone measured in its swollen state three-quarters of an inch by half an inch across. Its shell was quite soft and chipped away in places, exposing the white cotyledons and the radicle. A portion of the lung was hardened and cut into sections. What struck the eye at once was the fact that all the alveoli were collapsed. There was absolutely no exudation into them. The capillary vessels running among the clumps of alveoli were crowded with corpuscles, and there was an enormous increase of the interstitial fibrous tissue. This last fact accounts for the affected lung (although airless) being more bulky than the healthy one.

Remarks by Mr. PURVIS.—The failure of the attempts at extraction were due to the softening of the stone, which prevented it from being distinguished from the walls of the bronchus on probing, and to the violent coughing, which absolutely prevented any delicate manipulation of instruments. There was also the doubt as to whether the foreign body was the stone itself or only the soft, tough husk, which would doubtless have been soon ejected, as it would not have swollen. It was easy to realise afterwards that it would have been impossible for the seed to have travelled up through the glottis, owing to its having swollen so much. The moral clearly is that the tracheal wound should never be allowed to heal while any chance remains of the foreign body being still in the chest, and that such a seed, though it may swell and soften, does not disintegrate even after fifty-three days.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Adjourned Discussion on the Possibilities as to the Latency of Parasitic Germs or Specific Poisons in Animal Tissues, as in Hydrophobia, Erysipelas, Syphilis, Leprosy, Ringworm, Tuberculosis, &c.

AN ordinary meeting of this society was held on Dec. 10th, Mr. HUTCHINSON, President, being in the chair.

The adjourned discussion on the Possibilities as to the Latency of Parasitic Germs or Specific Poisons in Animal Tissues was continued by Dr. PHINEAS ABRAHAM, who introduced the subject of the Latency of Leprosy. He said that there were many facts in connexion with leprosy which bore upon the question of latency. Numerous instances had been met with in which the symptoms of that disease had not made their appearance until long and irregular periods had elapsed since the individual could have been subjected to infection, and there were many cases on record in which the symptoms appeared to have become dormant during the course of the malady or subsequently to its full development. We might thus distinguish an initial or "primary" and a "secondary" latency. The study of the subject was beset with considerable difficulty, as might be seen from the following considerations: 1. In the present state of knowledge we could not speak of any definite period of incubation for the bacillus of leprosy, for no one had yet indubitably succeeded in cultivating it, and of its life-history we knew nothing. 2. We could not clinically determine the entry of the microbe into the human body, for, as a general rule, there was observed no initial lesion or particular symptom. In a few cases there might be a history of some previous traumatism, with localised persistent inflammation or difficulty of healing; but the vast majority of patients could not point to anything of the kind or give any precise date as to when they could have contracted the malady. In point of fact, it was not yet proved that the virus of leprosy might not gain entry by the stomach or by as many different channels as the sister disease tuberculosis. 3. It was not easy to distinguish between the true latent and the incubatory periods. We might, with M. Besnier, consider that the incubatory stage only commenced when the latent spore should have found the soil and other conditions suitable for its proper growth and development, but the subjective and objective phenomena of the incubation might be slight and overlooked, and it must often be practically impossible to draw a line of demarcation between the two stages, which, nevertheless, must be theoretically admitted to exist. A period could only be regarded as one of latency (1) if there were absolutely no concomitant general or local disturbances, and (2) if the interval between infection and the appearance of symptoms were more or less prolonged and of indefinite duration. 4. From the above considerations, and from the fact that the inhabitants of an infected country might at any time be unknowingly placed under conditions for contracting the disease, we could only—to be quite free from doubt—take into view (1) those individuals who were of a leprosy-free race and who had recently come from a leprosy-free district, and (2) those, natives or others, who having sojourned in a leprous district had subsequently manifested the disease after removal to a country free from leprosy. The field of accurate observation was therefore much narrowed. When facts of some definiteness were obtainable the main thing observed was the irregularity of the period between the probable time of entry of the virus and the first appearance of the usual erythematous patches and other early pathognomonic signs. Some observers gave two to five years, others much longer. Instances were known of the disease appearing a few weeks after a patient had gone from an unaffected to an affected district, as in a case related by Arning; and, on the other hand, there were many examples of a prolonged retardation, as in cases mentioned by Leloir, Höegh, Thin, and others. Three remarkable instances of prolonged primary latency had come under Dr. Abraham's notice. The first was the well-known Whitechapel case exhibited at the Epidemiological Society in 1889. The man had gone in his youth, upwards of forty years previously, on voyages to the Baltic and Mediterranean, and afterwards had been for years selling meat in London, and had never mixed with sailors or others from foreign parts. He declared that he had no spots or other symptoms until six years before Dr. Abraham saw him. Although difficult to prove absolutely, it was most improbable that this man could have been exposed to any new source of infection during these forty years. It was more likely that the germ had really remained somewhere quiescent in his system for a great number of years, although, perhaps, not so many as he thought, seeing that he might have overlooked, as many lepers did, the very earliest signs of the complaint. In the following two cases the facts were tolerably certain. An Englishman had been taken to India as an infant and brought home when ten years old. When twenty-one he married a young English girl and shortly afterwards developed spots upon him. He died a few months ago a confirmed nodular leper. Since his return home he had lived in a humble way in a small inland town, and had never had communication with anyone or anything from India. A young woman, now a typical case of nodular leprosy, was born in Ceylon of English parentage, and brought to England when quite a young child. She remained perfectly healthy for some seven years, when she had an attack of what was thought to be rheumatic fever, accompanied with persistent erythematous swellings. The family had had no communication, directly or indirectly, with the East; it must be admitted that in her case, also, the microbe must have remained dormant for many years. Instances of so-called arrested or dormant leprosy, in which the symptoms remained in abeyance for a number of years, were frequently met with in asylums and leprous countries, and might be taken to illustrate the secondary latency of the disease. If, as in rare cases, a recrudescence did not take place, the patients might be regarded as in a condition of permanent arrest or real cure. Hansen's views were referred to, and the investigations of the Cape Commission mentioned. A case of temporary arrest of early symptoms in a boy now in England was also alluded to. In such cases the microbes had for some reason ceased growing and multiplying and had assumed a latent condition. Manson's hypothesis was quoted as affording a plausible explanation of the vagaries of leprosy—its periods of quiescence, its prolonged and uncertain incubation, its difficulty of inoculation, and many other points. It was shortly as follows. The bacillus was the cause of leprosy; it grew only in a medium existing in the bodies of certain human beings, and then perhaps only intermittently; if the bacillus fell upon such a person, it grew if the medium were present or when it was produced; it grew at the expense of the material and until the latter was exhausted; it then passed into a condition powerless to resist certain cells, not phagocytes, which incorporated it, and in which it became encysted, until fresh cultivating medium was supplied; the bacillus then became active, passed by vessels and lymphatics, and established other foci; when the cultivating medium

became exhausted the bacillus again became intra-cellular and passive.

Mr. J. ERNEST LANE continued the discussion, taking for his subject the Latency of Syphilis. He first alluded to the interval which might elapse between the appearance of the initial lesion and the first manifestation of constitutional infection. The minimum recorded period of this "second stage of incubation" was twelve days and the maximum 159. The latency of syphilis was next exemplified by cases in which, after the disease had apparently disappeared, it again manifested itself by the appearance of unmistakable symptoms after a lengthy period of complete immunity. While the possibilities in the direction of long latency were infinite, the duration of the period might continue for only two years. In hereditary syphilis the disease might be latent in the father, who, though apparently healthy, might infect his wife and children; or might be latent in the mother, who, having suffered from syphilis and having been presumably cured, might on marrying a healthy man produce a long series of syphilitic children. Further, Colles's law on the immunity of the mothers of syphilitic children was another example of the latency of the disease, for such mothers, though to all appearances perfectly healthy, had been proved by inoculation with syphilitic secretions to be protected from the disease. Lastly, cases of syphilis hereditaria tarda were instanced as proof that the disease might remain latent for a long time in the subjects of congenital syphilis.

(To be continued.)

MEDICAL SOCIETY OF LONDON.

The Diagnosis and Treatment of Early Cancer and Cysts of the Breast.

AN ordinary meeting of this society was held on Dec. 9th, the President, Sir JAMES CRICHTON BROWNE, being in the chair.

Mr. BRYANT read a paper on the Diagnosis and Treatment of Early Cancer and Cysts of the Breast. He said he had been induced to write it on account of a series of cases of cystic disease of the breast, most of which had been diagnosed as being cancerous tumours, having recently passed under his notice; and he was convinced that such errors of diagnosis might be diminished by care and thought. He admitted that typical examples of cancer as well as of adeno-sarcoma were usually readily recognised, and that difficulties of diagnosis, and consequently uncertainty of treatment, chiefly occurred when any or many deviations from the typical examples were met with. He divided his cases, in which difficulties of diagnosis were liable to occur, into the three following groups, the divisions being based on clinical symptoms alone. Group 1 included cases in which either in a young, middle-aged, or even old married or unmarried woman there was some enlargement or thickening of one lobe of a mammary gland, without any external evidence of wrong, either in the integument covering the affected lobe of the breast, the nipple, or lymphatic glands. Group 2 comprised cases in which there was a distinct and very evident lump, the size of a nut or walnut, shelled or unshelled, and inseparable from the breast gland, with some of the local conditions generally accepted as being indicative of a cancerous tumour, such as a flattened or retracted nipple, with or without an enlarged lymphatic axillary gland. Group 3 included cases in which in the middle-aged woman past child-bearing the breast gland feels to be generally, or in one or more of its lobes, harder than natural, coarse or knotty, the knots varying in size from small to large peas or nuts, and where there might be at times, with or without the application of pressure upon the gland, some discharge from the nipple of either a clear yellow or bloodstained fluid, or some cheesy pultaceous material, associated or otherwise with an enlargement of some lymphatic glands. He then took up each group separately and pointed out the questions which came before the surgeon with reference to diagnosis and treatment. In Group 1 the main question to decide was whether the local lump or induration was an early cancerous tumour or a cyst, or, if in any way connected with lactation, a chronic abscess. If probabilities pointed to its being cancerous in its nature he showed how important it was to have the diagnosis clear and the local disease removed; for such a measure, when undertaken at the very earliest stage of incipient infiltration, was far more likely to be followed by a permanent cure than when performed at any later stage. For this purpose he advocated in these cases an early exploratory incision as a preliminary measure to an excision of the growth and gland should the diagnosis of carcinoma be verified. He said he had followed this practice for many years and with the best results. In Group 2, in which there was a distinct tumour present and the question for diagnosis lay between a local cancer and a cyst, Mr. Bryant pointed out the wisdom of the question of cyst always having a first place in the surgeon's mind, for he believed it was from a neglect of this habit of thought that so many mistakes in diagnosis were met with. He drew attention to certain methods of examination which facilitated diagnosis, and to the value of different objective symptoms which might be present in the different cases. He illustrated this group, with its treatment, by giving brief notes of many interesting examples, and pointed out that these cases had mostly occurred in women after forty years of age. The disappearance of cysts by time and treatment was then discussed and illustrated by cases, but Mr. Bryant stated that such cases as these were not common, and gave no support to a practice which allowed the local trouble to continue without treatment. He believed that cases of reputed disappearance of adeno-sarcomata and of cancer were examples of mistaken diagnosis, and in reality were cysts. He had never known a tumour which was solid to disappear without surgical assistance. The reappearance of cysts which had been said to have disappeared spontaneously years before was also pointed out, and the remark made and illustrated that in one case the re-enlargement of the cyst might be genuine, and that in another the cysts might be of the proliferating kind. The third group was finally considered and the clinical features of the cases included in it carefully described. Such cases, he said, were too often regarded as being cancerous. The points for diagnosis were emphasised, and the subject illustrated by three cases worthy of study. By way of conclusion he expressed his belief that in the three groups of cases to which he had drawn attention his hearers would be able to find a place for most, if not all, the doubtful and difficult cases which would come before them, and he felt assured that if they would carry to the bedside the thoughts and methods of investigation to which he had drawn their attention their difficulties—which had been his difficulties—would be found to lessen, if not disappear, and that at any rate a working diagnosis could be arrived at in most of the cases upon which a sound treatment could be based, and that of "drifting" avoided, to the advantage of the patient and the credit of the profession.

Mr. MARMADUKE SHEILD said that the subject of the diagnosis of these cases was one of great interest and importance. Surgeons who possessed the accumulated experience of a large number of years were the only ones to speak on this subject with confidence. Mr. Bryant had used the term "adeno-sarcoma" to describe some of these cases, and to the speaker's mind no cases were more difficult to diagnose than sarcoma of the breast. Many cases classified after microscopical examination as "adenoma" recurred and were ultimately classed as sarcoma. As to the treatment of chronic indurations of the breast, were large doses of liquor potassæ to be recommended, or the internal administration of mercury and iodide of potassium with local strapping? From his own observations he was convinced that a certain number of these cases were syphilitic. He had seen cysts of the breast with such thick walls and so greatly distended with fluid that neither elasticity nor fluctuation could be recognised; such swellings had frequently been removed for cancer. The difficulty about the exploratory incision was the formation of a scar upon the breast, and he inquired if tapping with a fine trocar and injection with iodine would not suffice to cure some of the simple cysts? He had met with a case in a woman aged forty who had a hard lump in her breast. He explored it with a large trocar and cannula and found nothing. He then removed the breast, when he found a very thick-walled cyst containing putty-like material, no doubt a galactocele of ancient date. He inquired if Mr. Bryant had ever met with a dermoid cyst of the breast.

Dr. SNOW related a case in which a cyst had been evacuated and then later a malignant fungous growth protruded from the incision. He held that cysts associated with malignant disease were common—in fact, that every cyst of the breast became sooner or later associated with

malignant disease. He had never seen cysts disappear spontaneously.

Mr. TURNER related a case in which he removed a sebaceous cyst from the breast of a medical man's wife aged thirty who had borne children and in whom the growth was of some months' standing. He brought a case some years ago before the Clinical Society which he believed illustrated the possible spontaneous disappearance of sarcomatous growths. The patient, a woman, was suffering from sarcoma of the thyroid gland. He did a low tracheotomy and the growth almost disappeared. It later grew again, and then once more shrivelled up. She died from some other affection, and at the necropsy the diagnosis of sarcoma was confirmed.

Mr. L. BIDWELL said that two cases of cyst which he had seen lately had been treated by simple aspiration and had been followed by cure. In cases of tumour of the breast with retracted nipple it was often difficult to decide whether they were carcinomatous or inflammatory, and the character of the fluid evacuated by the nipple on pressure over the breast was not always a trustworthy guide as to the nature of the affection.

Mr. LOCKWOOD said he had seen a surgeon expose himself to the humiliation of discovering after the removal of a breast that the tumour was nothing more than a thick-walled cyst. This would have been avoided if he had adhered to the rule of cutting into tumours before removing them. He had seen some time ago a case of ascites due to secondary cancerous growths in the liver and great omentum. Ten or twelve years before a cyst of the left breast had been treated by puncture and injection of iodine. On examination there was a considerable mass in the left breast, and he had no doubt that when first tapped some growth was present in addition to the cyst.

Mr. BRYANT, in reply, speaking of adeno-sarcoma, said that these growths occurred in younger women than those who were the subjects of cancer. The tumour was rapidly growing, and on examination was found to be encapsuled and movable and of a soft and succulent nature. Nearly all the cases of cyst he had been relating were brought to him by medical men as malignant growths, and for this reason he found it politic to advise an exploratory incision rather than tapping. He was quite convinced that it was false to assert that the majority of cysts of the breast in middle-aged women were associated with cancer or were likely to become so, and it was wrong to lead these patients to believe that such breasts would probably become the seat of cancer. Cases of involution cyst in women who were middle-aged, or prematurely so, should be carefully watched. The character of the fluid evacuated from a cyst was certainly of value in many cases as an aid to diagnosis. His rule was to treat simple serous cysts by plugging; other cases of cyst, especially when associated with intra-cystic growth, were dissected out; where the cysts were multiple he removed the lobe or the whole gland. He had seen but one dermoid of the breast, but had met with many sebaceous cysts. A simple cyst, if it gave rise to no trouble, might be left alone; no treatment was of use to cause absorption. He had seen no good from tapping; on the contrary, harm had followed, but this harm, as being of a septic nature, might probably be avoided nowadays. The scar which resulted from exploration was usually insignificant, and where the diagnosis was in doubt between cyst and cancer the patient would usually readily submit to incision.

OBSTETRICAL SOCIETY OF LONDON.

Tubo-Uterine Pregnancy.—Uterus Didelphys.—Exhibition of Specimen.

A MEETING of this society was held on Dec. 4th, Dr. F. H. CHAMPNEYS, President, being in the chair.

Mr. BLAND SUTTON read notes of a case of Tubo-Uterine Pregnancy with Primary Intra-peritoneal Rupture and Recovery. He detailed the possible modes of termination of a tubo-uterine (interstitial) pregnancy, and compared them with those of a purely tubal one. He also related a case which occurred in his practice of a woman aged twenty-two years who had been married two and a half years and had not been pregnant. Menstruation was fourteen days overdue when she was seized with severe pain in the abdomen and vomiting. When seen she was blanched, and the physical signs pointed to rupture of a gravid tube. On opening the abdomen a large quantity of blood was evacuated, and a rent was found at the right angle of the uterus from which arterial blood was issuing at several points. The bleeding surfaces were secured by silk ligatures passed through the substance of the uterus, and the tube and ovary were cut away. The uterus was found to be unusually large, and probably owing to the large decidua which had to come away the patient vomited frequently during the first seventy hours after operation. After the decidua had come away the patient recovered quite satisfactorily. Mr. Sutton believed that this was the first recorded example of primary rupture of the sac of a tubo-uterine gestation treated by a surgical operation. The ovum was not found, but no other explanation of the condition of affairs suggests itself but that of tubo-uterine pregnancy.—Mr. ALBAN DORAN considered that Mr. Sutton had shown that the treatment of a ruptured interstitial pregnancy was relatively simple, though the danger was usually extreme. Amputation of the uterus was the course which had so often been recommended on partly theoretical grounds; but Dr. Dunning[1] recently lost a case of this kind during operation. In his report he very properly dwells on the dangers of performing hysterectomy on a patient already in a profound state of shock. In regard to the decidua, Pilliet[2] had shown that, so far from it being ill developed in ectopic gestation, it was particularly well formed and bulky. This fact must be remembered in association with the theory that the fœtus was relatively ill developed.—Dr. HORROCKS asked if the size of the uterus had been measured in any way. It was only stated in the paper that it was enlarged. He agreed that the case was probably one of tubo-uterine gestation. As a result of investigations he had found that in cases of extra-uterine gestation the uterus begins to grow in size just in the same way as it does in intra-uterine gestation, and if the embryo lived it went on growing and did not stop at the end of a few months. If the fœtus died involution of the uterus commenced and was completed unless prevented by complications such as would cause involution ordinarily. Hence in any given case the size of the uterus was a most important factor in the diagnosis. If the uterus were not enlarged one could say that either the case was not extra-uterine gestation at all or, if it were, the fœtus was dead and had been dead long enough to have allowed involution to be completed. Of course, it was to be remembered that the uterus was not so great absolutely as in intra-uterine pregnancy; what was meant was that at any given date of pregnancy the uterus was as great in extra- as in intra-uterine gestation when in the latter case the uterus had been emptied of its contents. He asked also whether the rupture in this case had taken place through the substance of the wall of the uterus or close to the edge where the Fallopian tube emerges.—Dr. BOXALL inquired if, apart from the absence of menstruation for six weeks, there existed any evidence—e.g., morning sickness—of pregnancy having exceeded that duration; and also if Mr. Sutton, from a comparison with the character of preceding periods, was disposed to regard the last flow prior to the operation as a regular period or as a hæmorrhage accompanying the abnormal gestation and symptomatic of it.

Dr. ARTHUR GILES read a paper on a Case of Uterus Didelphys, with remarks on the Clinical Importance of this Malformation. He recalled the three principal types of double uterus—viz., septus, bicornis, and didelphys—a description of these being given, with outline figures. He next described his case, observed at the Middlesex Hospital. The patient complained of a protrusion from the vagina; this was found to be the remains of the vaginal septum. Under ether the exact condition was ascertained; it was illustrated by a drawing. Dr. Giles discussed the clinical features of the condition as illustrated by recorded cases. Abstracts of these were given, under five headings: 1. Cases of unilateral atresia with retained menstrual products, five cases. 2. Pregnancy in one-half of the uterus, eight cases. 3. Simultaneous pregnancy in both halves, two cases. 4. Cases uncomplicated by atresia or pregnancy, six cases. These twenty-one cases (including Dr. Giles's) were all that he could find recorded during the last twenty-five years as occurring in living adults. Two recently published cases were also given. 5. Cases discovered on the post-mortem table, four cases. A table was given of the twenty-one clinical cases, illustrating the following points:

[1] American Gynæcological and Obstetrical Journal, November, 1895.
[2] Annales de Gynécologie et d'Obstétrique, October 1895.

1. Age; most of the patients were under thirty. 2. Marriage; fifteen were married; in two there was dyspareunia. 3. Parity; pregnancy occurred in fourteen of the fifteen married cases; eleven had borne children, and three had miscarried. Among the eleven sixteen labours occurred, of which ten were natural. The six cases of dystocia were as follows: obstruction to labour by the empty retroverted half, three cases; obstruction by the vaginal septum, one case; forceps, two cases. 4. In four cases the two halves were of equal size; the right was the larger in six and the left in eleven. 5. In only one case the vagina was originally single; in six there was atresia of one half; in the remainder the two vaginæ were patent and separate. 6. Menstruation was slightly delayed; it occurred—

At 14 in 3 cases.	At 16 in 4 cases.	At 18 in 1 case.
At 15 in 4 cases.	At 17 in 1 case.	At 26 in 1 case.

It was regular in twelve out of sixteen recorded cases, and painless in twelve out of fifteen. In one case the two halves menstruated separately. In the eight cases of single pregnancy there is mention in four of a decidua in the non-gravid half. The clinical complications that may arise are: 1. Unilateral atresia, with retained menstrual products. 2. Dyspareunia. 3. Double vaginitis or endometritis, unsuccessfully treated by application to one-half only. 4. Obstruction to labour by the retroverted non-gravid half. 5. Obstruction due to the vaginal septum. 6. Retained and undiscovered products of conception in one-half in cases of double pregnancy. A bibliography was appended.—Dr. GALABIN referred first to two cases of uterus didelphys, one associated with congenital absence of the vagina, the other with fibroid tumour of one uterus only, notes of which were appended to Dr. Giles's paper. In a third case he had met with dystocia of a very unusual kind arising from a double uterus, not a complete uterus didelphys, but rather a uterus bicornis, yet not of the usual kind, for the uteri were completely separate, without any uniting band, even below the level of the internal os. The lower part of the cervix, however, was common. The woman had had several children normally; but for some unexplained reason, in her last pregnancy the poles of the two uteri became turned in opposite directions. The result was that the ovum, which began in one uterus, made its way also into the other. At full term one fundus was in the normal position; the other fundus lay in a reversed position in the pelvis and contained the head of the fœtus. The patient was admitted into Guy's Hospital in labour, and the true state of affairs was naturally not discovered till abdominal section had been performed. A large hard mass filled the pelvis, and was thought to be a fibroid tumour. The os was quite out of reach, the liquor amnii had escaped, and a hand of the fœtus could just be touched. Cæsarean section having been performed and the fœtus removed, the displaced body of the uterus at once sprang back to its normal position, and the two halves lay side by side. The incision, at first straight, was thus converted into an elongated U-shape, and the centre of the U ran through very thin overstretched cervical tissue. The edges had become so distorted that it was very difficult to sew up the incision satisfactorily. This was at length accomplished, and the patient recovered without a bad symptom, the child also being alive.—Dr. AMAND ROUTH thought these cases were not so rare as the scanty bibliography appeared to indicate. He had seen two cases. The first was described and pictured in the *Illustrated Medical News*, March, 1889. The woman was married, aged twenty-four, and had had three children. The catamenia began at thirteen and a half. There was amenorrhœa during pregnancy. The vaginal septum had been torn through, but the two uteri were quite distinct, one being anteverted, two and a half inches long; the other (right) was three and a quarter inches long and retroverted. Bimanually the uteri were felt to be quite separate, but joined loosely by a thick transverse band. She was suffering from subinvolution in the large uterus. His second case[3] was that of a single woman aged twenty-seven years who was under the care of Dr. C. H. F. Routh. She was found to have a tense vaginal ridge on the left side continuous with an elastic mass in the pelvis on the left of what appeared to be a normal uterus. The vaginal ridge was incised and its contents allowed to escape. It was then found to be a case of distinct double uterus and double vagina, with left vaginal atresia, producing left hæmatocolpus and hæmatometra. The left uterus eventually contracted down to two and a half inches, but remained retroverted.—Dr. GILES, in reply, agreed with Dr. Amand Routh as to the degree of rarity of these cases. He was interested in the cases related by Dr. Galabin, and would ask permission of the society and of Dr. Galabin to include a short account of the two cases of uterus didelphys in the paper in the form of an appendix.

The following specimen was exhibited:—Dr. CULLINGWORTH: Supposed Tubo-Ovarian Cyst.

[3] Transactions of the Obstetrical Society, vol. xxxvi.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases.

A CLINICAL meeting of this society was held on Dec. 6th, Dr. A. SYMONS ECCLES, President, being in the chair.

Dr. SEYMOUR TAYLOR showed: 1. A man aged thirty with Symmetrical Drooping of the Pinnæ, which might, he suggested, be an instance of maternal impression, the mother having sustained a fright from a rat when she was four months pregnant. 2. A woman presenting all the classical signs of Myxœdema, but the thyroid body was enlarged, though probably dystrophic. He believed that, as in the case of disease of the adrenals, any actual disorganisation of the thyroid body would produce myxœdema. 3. A woman with the usual signs of Myxœdema, except that she was remarkably pallid and was without the usual circumscribed blush on the cheeks. He believed that there existed a distinct variety of pallid cases. In this case there was no albuminuria or evidence of cardio-vascular changes.—Dr. DOBSON remarked that in one of his cases there had been albuminuria, which disappeared under the thyroid treatment.

Mr. BIDWELL showed a case of Sclerosis of the Superior Maxilla in a woman aged fifty-two. For eight years there had been swelling of the left upper alveolus, and recently severe aching pain. A molar tooth was extracted, and since then the swelling had greatly decreased, thus showing that it was not an osteoma. There was no evidence of syphilis or acromegaly.

Mr. MCADAM ECCLES, for Mr. PAGET, showed a case of Resection of the Elbow for Compound Fracture of the Humerus.—Mr. BIDWELL said that when possible resection should not be performed in these cases, since a stronger joint thus resulted.

Mr. KEETLEY showed a boy on whom he had performed an operation for Radical Cure of Hernia with Undescended Testis by bringing the organ into the scrotum and fixing it there by suture to the adjacent tissues of the thigh.

Mr. MCADAM ECCLES showed a girl aged thirteen with at least twenty-three Exostoses. There was a history of rheumatism, but none of syphilis. The mental condition had not been noted.—Dr. SHUTTLEWORTH quoted the case of a boy thus afflicted who was imbecile and a girl who was mentally defective.

Dr. ALDERSON showed a case of Rodent or Epitheliomatous Ulcer on the Nose of a man aged ninety. There had first been a wart, which had been treated with caustics. He believed the ulcer to be epitheliomatous.—Mr. BIDWELL concurred in the diagnosis and advised operation under cocaine.—Mr. MCADAM ECCLES thought it was rodent ulcer owing to its early history, its slow growth, and the non-involvement of glands. He suggested ethyl chloride as a local anæsthetic.—Mr. KEETLEY discussed the differential diagnosis and believed this case to be probably one of rodent ulcer.—Dr. POTTER held that rodent ulcer was an early stage of epithelioma.

ISLINGTON MEDICAL SOCIETY.

Lunacy and General Practice.

THE second meeting of the session was held at the residence of Mr. G. T. KEELE, St. Paul's-road, Highbury, on Nov. 26th.

After confirmation of the minutes and election of new members, a paper was read by Dr. T. SEYMOUR TUKE on Lunacy and General Practice: some Thoughts on the Duties, Difficulties, and Responsibilities of the Private Practitioner. Dr. Tuke began by saying that it was incumbent on every man going into private practice to know more than something about lunacy. It had been much neglected, but he was glad to be able to hope that in the future, instead of the instinctive dread that was so commonly felt when a case of insanity was met with, all medical men would be

prepared to act fearlessly, spontaneously, and self-reliantly on their own responsibility, and be better able to know when to intervene. Asylum experience is of course necessary, but careful attendance at demonstrations, reading, and observation are of importance. Dr. Tuke would go further, and say that all men, whether medical or not, would be the better for having some knowledge of the subject, and of first principles and possible results, for the most important thing in lunacy is early recognition and early treatment. The general public know nothing of lunacy. They have been allowed by those who should guide them aright to remain in a condition absolutely behind the times—namely, one some fifty years old—instead of keeping pace with the tremendous changes that have taken place. Outcry is made if anything goes wrong, but little is thought or known of the zeal and self-sacrifice of those who devote their lives to the study of insanity and the care of the insane in both public and private asylums. The private practitioner has much to think of in the early stages. There are friends and relatives (often all in opposition to each other) to advise, nurses to provide, treatment to be considered, changes, removals, and choice of places to be decided on, and much thankless work to be done. After a few words on the legal processes in private and pauper cases, and on the subject of writing certificates, the kinds of cases that were most likely to confront the private practitioner were mentioned, the puerperal, melancholic, and those cases where depression was a marked symptom from any cause, too often met with in our daily papers, and too often consigned to oblivion with the verdict of "temporary insanity," a thing that rarely, if ever, exists. Under this head come cases of imaginary impotence, disease, unworthiness, wickedness, and bankruptcy, all of which should never be treated lightly. Maniacal cases (apart from temporary febrile and alcoholic conditions) and cases of youthful, senile, hysterical, and climacteric insanity were mentioned, and special attention drawn to the early recognition of general paralysis of the insane. All these depend on the watchfulness and action of the "usual medical attendant." Dr. Tuke concluded by protesting against many of the cruel, ignorant, and idle things that had been said and written of late about insanity and those who made it their special study, and against the violent attacks levelled at individuals started by those who are either ignorant or wilfully desirous of advertising themselves and misleading the public.

Mr. KEELE, while quite concurring in the advice of Dr. Tuke as to the benefit of early recognition and treatment in cases of insanity, spoke of the many difficulties a practitioner had to encounter in dealing with such cases. He exemplified this by narrating a case that had given him much trouble and anxiety last summer. A man gradually developed insanity, imagining there was a league of men against him, and by falsely accusing his relatives and threatening them with violence. He was unable to get this man to go into the country for a change, for, like Dr. Mack's patient, he positively refused to go. One day the man jumped out of a window to escape his imaginary foes, and Mr. Keele then certified to his being of unsound mind, and the relieving officer removed him to the infirmary of the Islington Workhouse. The patient was duly seen by the magistrate and medical officer, with the result that a detention order of fourteen days was given. At the end of that period the man was discharged from the infirmary without any previous notice being given to his relatives. He was fortunately met in the street by his sister and taken home. Mr. Keele had written to the relieving officer and stated he considered such conduct on the part of the authorities as cruel and wrong. The man continued at home for about a month, his delusions more intense, and his threats of violence increasing. Mr. Keele then advised the relatives to consult a specialist in lunacy, with the result that an urgency order was obtained for his removal to St. Luke's, where he is still, after two months, a patient requiring careful observation.

After some remarks by Dr. DUCAT, Dr. REID, Mr. WORLEY, and Mr. KING, a vote of thanks was passed to Dr. TUKE, and the meeting adjourned.

LIVERPOOL MEDICAL INSTITUTION.

Lamellar Fibromata.—Exhibition of Cases and Specimens.

A MEETING of the Pathological Section of this society was held on Dec. 5th, Mr. G. G. HAMILTON being in the chair.

Dr. ABRAM read a short paper upon Lamellar Fibromata, which was illustrated by specimens and by lantern slides. The lantern slides were prepared from photographs taken by Professor Boyce.—Dr. BUCHANAN said that in a specimen he had examined the structure was identical with that of a hydatid membrane, and no cellular elements were observed.—Dr. WIGLESWORTH called attention to the similarity in microscopical structure displayed by Dr. Abram's specimens and the fibrous thickenings of cartilaginous consistence which are not infrequently met with on the splenic capsule in old people and alcoholic subjects, and he said the latter formations might be described as lamellar fibromata.—Mr. HAMILTON, Mr. PAUL, Mr. LARKIN, Professor BOYCE, and Professor SHERRINGTON took part in the discussion, and Dr. ABRAM replied.

Dr. BUCHANAN showed the Stomach from a case of Carbolic Acid Poisoning, and a beautiful drawing of the appearance of the specimen when fresh. He drew attention to the immunity of the tongue and the glosso-epiglottidean folds, and pointed out that the duodenum was not affected in the least degree. The stomach was greatly contracted, and the mucous membrane had a greyish, brilliant pearly lustre like oily putty.

Dr. WIGLESWORTH showed (1) the Brain from a case of Hydrocephalus; and (2) the Brain from a case of Cerebral Tumour.—Mr. PARKER referred to a case of Brain Tumour in which, some six years ago, he had removed a tumour from the right Rolandic area, the patient being still alive and well. In his case, however, the diagnosis had not been one of great difficulty, unlike Dr. Wiglesworth's, in which diagnosis of the condition was impossible.

Dr. A. W. CAMPBELL showed some Brain Sections from a case of Cerebral Hæmorrhage prepared by a new method. They were made in March, 1895, and had satisfactorily retained their colour. The following is the method of procedure: 1. Immersion of the brain in a 1 in 20 carbolic acid solution for a few days. 2. Sections one-eighth to a quarter of an inch in thickness are then cut. 3. The sections are placed face downwards upon a piece of glass, surrounded by a framework of wood, and covered with melted paraffin (46° C.); the paraffin is then allowed to set. 4. The glass is then lifted up, some Farrant's solution poured over the section, and the glass replaced, the edges being sealed by Canada balsam. 5. A plaster-of-Paris frame is then moulded on to the sides and back of the specimen.

Mr. MURRAY exhibited some patients suffering from Lymphangeioma and Sections of the Growths.—Mr. PARKER had lately had a similar case. He discussed the questions of angeiomata and lymphangeiomata, and asked for an opinion on the subject of "degenerated nævi," which he held to be lymphangeiomata.—Professor BOYCE, Mr. HAMILTON, and Mr. BARENDT also spoke.

Dr. ANNETT showed specimens of Meningo-encephalitis.

Mr. THELWALL THOMAS exhibited specimens of Tuberculosis of the Peritoneum snipped out during an operation. The specimens showed typical tuberculous granulations. The boy, now eighteen months after operation, is in perfect health. He also showed an Implantation Cyst from the Head of the Metatarsal Bone of the Great Toe. The epithelial graft had no doubt been made in the process of scraping for caries, which had been performed on three occasions. He likewise showed two cases of Multiple Epitheliomata: (1) epithelioma in the centre of the lower lip removed by operation, followed three years later by two separate and distinct growths in the same lip, but away from the scar; and (2) hard warts of the lip and juicy epithelioma of the tongue.

Mr. MURRAY and Mr. PAUL brought forward a case of Sacro-coccygeal Tumour in a Boy aged two years. Mr. Paul said the growth measured five inches by four inches by three inches, and was situated between the rectum and the coccyx, projecting on the surface behind the anus where the skin was ulcerated over it. The central part consisted of a soft fungating growth of malignant appearance, composed for the most part of trabeculæ of connective tissue set with one or more layers of cubical epithelium, but also containing tracts of skin, with hairs, sebaceous and sweat glands. The outer parts of the growth were dense and fibrous and contained immature bone. In another part Lieberkükn's follicles were recognised. The structure was very complex, and discussing the relation of this with other tumours Mr. Paul thought it should be grouped with the congenital renal and thyroid growths.—Mr. PARKER said Mr. Paul had not mentioned the adenoid variety of these growths, of which he had shown a specimen at the previous meeting. He considered that the growth was

not malignant, but simulated the malignant state from the rupture of a cyst and subsequent septic inflammation.

Mr. G. G. HAMILTON showed specimens of (1) Union of Intestine by Murphy's Button; and (2) Cholecyst-colostomy.

Dr. LEIGH showed photographs of Count Orloff. He considered the "wonder" to be an example of osteo-malacia.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Nephrectomy for Hydronephrosis.—A Case of Diabetic Neuritis.—Exhibition of Specimens.

A MEETING of this society was held on Dec. 4th, Dr. CATTLE being in the chair *pro tem.*

Mr. ANDERSON read a paper on Nephrectomy for Hydronephrosis. The details of five cases were given, all of which recovered after operation. In two cases, a boy aged ten and a woman aged thirty-seven, the usual symptoms of hydronephrosis were present, such as attacks of spasmodic pain, and formation of a tumour which disappeared coincidently with a large flow of urine and relief of the pain. In both these cases the origin of the ureter was reduced to a pin-hole, the kidney substance atrophied, especially in the case of the female, whose symptoms had lasted twenty years, and the pelvis was dilated to the capacity of a pint or more. In three other cases, one in a man, the hydronephrotic condition was associated with mobility of the organ. The case in the man was successfully treated by suturing the kidney to the lumbar muscles. The same treatment was pursued in the case of a female, but the kidney subsequently broke loose. This was due, it was thought, to the stitches cutting through the attenuated kidney substance. The patient was seized with rigors, high temperature, and swelling of the abdomen. On exploration the kidney was found swollen and livid owing to twisting of the pedicle. It was removed, and the patient recovered. In a third case of hydronephrotic and movable kidney extirpation was at once carried out. The paper concluded with a review of the various causes of hydronephrosis, Mr. Anderson remarking that he believed his cases of pin-hole ureter were almost unique.—Dr. WATSON made some remarks.

Mr. PRYCE read notes of a Case of Diabetic Neuritis in a man aged fifty years who had drunk freely of beer and spirits. He was ataxic, but Romberg's symptom was not well-marked. In the left leg no knee-jerk could be obtained, an erythematous rash was present, and there were trophic ulcers and anæsthetic patches on the foot. He had suffered from sciatic pains. The urine contained much sugar.—The CHAIRMAN and Mr. ANDERSON made remarks, to which Mr. PRYCE replied.

Mr. ANDERSON showed (1) an Ovarian Tumour weighing ten pounds; (2) a Tumour of the Right Lobe of the Thyroid Gland; and (3) two Hydronephrotic Kidneys with Pin-hole Ureters.

MIDLAND MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—Vaginal Cœliotomy.

AN ordinary meeting of this society was held at the Birmingham Medical Institute on Dec. 4th, the President, Dr. T. EDGAR UNDERHILL, being in the chair.

Mr. MARRIS showed for Dr. SIMON a boy seven years of age afflicted with Leucoderma. He was one of ten children and had always been weaker, mentally and physically, than the rest of the family. Twelve months ago his hair, which had been almost black, began to fall off in patches. As the hair grew again it was found to be pure white. At present the head is well covered with a growth of very soft white hair, except for a band about two inches broad extending round the back of the head from ear to ear which retains its original dark colour. Below this band the hair is again white. Scattered without symmetry over the body and limbs are patches of white skin surrounded by a brown pigmentation, which fades gradually into the natural skin tint. The areas of white skin vary in size. The skin of the face is uniformly dark, contrasting markedly with the white hair. Under the microscope the hairs are seen to contain a few relics of the dark medulla. There is no deepening in colour of the nipples and there is no pigmentation within the mouth.

Mr. BARLING showed Photographs of an Unusual Case of Syphiloderma, with hæmorrhagic centres to the individual patches.

Mr. HAMMOND SMITH showed a Knee-joint with Fracture of the Outer Head of the Tibia extending into the joint. The cause was a fall of coal, which produced a compound fracture of the leg unconnected with that into the knee-joint. Large hæmorrhage into the joint and indistinct crepitation led to the diagnosis of the outer fracture and amputation through the lower part of the thigh.

Mr. BARLING showed a Sequestrum from a case of "Quiet Necrosis" in a male aged fifty-two, which in many ways simulated sarcoma of the femur. There was a massive swelling encircling the bone and completely fixed on it, and without any of the signs of inflammation. Incision into this revealed dense inflammatory infiltration of the muscles and a small quantity of semi-fluid material at the back of the femur in contact with a small patch of bare bone, whence the sequestrum eventually separated. The necrosis followed double pneumonia some three months before, the swelling appearing during convalescence.

Dr. PURSLOW showed a specimen illustrating Perforation of the After-coming Head. The patient was a primipara, and when Dr. Purslow saw her attempts had been made, under chloroform, to deliver the head by traction on the body and by forceps. Pulsation in the cord had ceased some hours previously. The perforator was passed through the roof of the mouth, and after evacuation of brain matter the head was delivered by traction on the body. Attention was drawn to the advantages offered by the roof of the mouth as a site for perforation of the after-coming head.

Dr. SHORT showed the Gall-bladder and Ducts from a man aged seventy-nine years who died from Senile Asthenia. A few days before death jaundice set in, with bilious urine; there was no pain and the stools were dark in colour. After death the gall-bladder was found full of gall-stones, contracted, and fibrosed. The common bile-duct was much dilated and partially obstructed by a stone. The dilatation appeared of old date, but no history of any attack resembling hepatic colic could be obtained.—Dr. SHORT also showed the Stomach of a man aged forty. Three years before death the man had extremely severe hæmatemesis, followed by pain, but unaccompanied by signs of hepatic cirrhosis. The pain, at first paroxysmal and afterwards constant, persisted, and the case ran the clinical course of a pyloric cancer, with dilated stomach, but no tumour was felt during life, and the pain at times was intense. He refused operative interference. At the necropsy a large flat ulcer of the size of a crown-piece was found on the posterior wall of the stomach, close to the pyloric aperture, which was narrowed by the hard, raised edge of the ulcer. Microscopically no evidence of cancer could be found.

Dr. RUSSELL showed a specimen of Dilated Duodenum from a case of Peripheral Neuritis.

Mr. W. EDELSTEN BRACEY showed a Portable Irrigator the main feature of which was a bucket of sufficient size which was collapsable in the manner of the well-known drinking cup. The apparatus was well made, there being absolutely no leakage, and the price was moderate.

Mr. JOHN W. TAYLOR read a paper on Cases of Vaginal Cœliotomy. A description was given of the operation, followed by a series of cases illustrating Mr. Taylor's experience of vaginal cœliotomy as applied to vaginal fixation of the uterus, removal of the appendages, igni-puncture of the ovaries, and separation of pelvic adhesions. Mr. Taylor concluded his paper with a description of the part played by this operation in the practice of Professor Martin and Dr. Dührssen of Berlin, and drew attention to the important position which the operation was rapidly assuming and to some of its more recent developments.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Cranial Hypertrophy.—Fracture of the Ethmoid Bone with Basal Meningitis.—Method of measuring the Shortening at the Neck of the Femur.—Epidemic of Hysteria.—Exhibition of Cases and Specimens.

A MEETING of this society was held on Nov. 29th, Mr. MAYO ROBSON, President, being in the chair.

Mr. HARTLEY showed an unusual case of Cranial Hypertrophy in a boy aged twelve years. The condition was congenital and almost entirely confined to the cranium, the

bones of the face being very slightly affected. The principal bosses were two—one at the vertex and a second on the left side of the skull involving chiefly the parietal region. In addition there were irregular thickening of the occiput and an invasion of the orbits producing marked proptosis, absolute loss of one eyeball, and complete blindness in the other. The upper jaw was much compressed laterally, the two halves forming a very acute angle in front and the teeth growing very irregularly. (Plaster casts by Mr. MARGETSON were shown.) The lower jaw was normal. There was no evidence of intracranial disease, of hydrocephalus, or congenital syphilis, and no deformity of the limbs or joints. The patient's mental development is quite up to the average; he has a good ear for music, and is being educated on the Braille system. The case seems nearest akin to leontiasis ossea.—Dr. GRIFFITH mentioned that the museum of the medical school contained a skull closely resembling that in the case just recorded, and he himself had shown a somewhat similar case at a previous meeting.—The PRESIDENT had seen a somewhat similar case improved by iodide of potassium.—Dr. EDDISON asked whether there was any evidence of syphilis in the parents; he thought the appearance suggested it. It was unlike any case of osteitis deformans that he had seen, nor was it ordinary hydrocephalus.

Mr. W. H. BROWN read notes of a case of Fracture of the Ethmoid Bone with Basal Meningitis. The patient, a boy aged sixteen years, was struck over the occipital region of the skull by a falling stone; he fell forward, his forehead coming violently into contact with the ground. He was unconscious for a short time. No special symptoms were noticed, but he was kept in bed. On the third day, when sitting up, a copious watery discharge ran from both nostrils and continued for six days, when it ceased. The temperature rose to 104·5° F. and was accompanied by intense frontal pain, photophobia, tinnitus, and a transient strabismus. Three weeks after the accident he was admitted to the Leeds Infirmary under the care of Mr. Brown. There were then no external signs of injury beyond some discolouration of the skin at the root of the nose. He complained of severe temporal pain; the movements and sensations of all the limbs were normal; the temperature was 100°; there was convergent strabismus affecting both eyes, the pupils were dilated and reacted slightly to bright light, and double optic papillitis was present. Later, vomiting occurred at irregular intervals; the boy was irritable and at times delirious, but gradually his symptoms disappeared and he is now quite well. Mr. Brown believed that only a few cases of basal fracture with nasal discharge of transparent fluid recovered, and said that a discharge from the Schneiderian membrane might be taken for cerebro-spinal fluid. He thought the fluid in this case was cerebro-spinal, on account of the quantity and absence of any affection of the sense of smell.—Mr. SECKER WALKER said he had lately examined the eyes again, and all the ocular symptoms had disappeared except some slight swelling of the right optic disc. Vision in each eye is good. He mentioned that at least four cases of persistent discharge of cerebro-spinal fluid from the nose associated with double optic neuritis had been reported, but in these cases there was no history of traumatism.—Mr. WARD and Mr. LITTLEWOOD both thought that the ice-bag was of little value in the treatment of head injuries.—Dr. TREVELYAN thought it was a typical example of traumatic cerebro-spinal meningitis both in its symptoms and temperature chart. He observed that the prognosis of these cases of non-tuberculous meningitis was a matter of exceptional interest. The longer the disease had lasted after a certain point, the better the patient's chance of recovery. The particular micro-organism setting up the disease was also a very important matter. Spinal puncture might in the future throw light on this latter question, and also show how far the pathological processes might extend in the direction of pus production and yet be consistent with recovery.

The PRESIDENT demonstrated a Method of measuring the Shortening at the Neck of the Femur which he had employed for several years, and which he believed had not been hitherto described. The method consists in drawing a transverse line from the tip of the great trochanter forward and inwards across the front of the thigh on each side, and dropping a vertical line to meet this from the tip of each anterior superior spine; the latter constitute the measuring lines in question. The advantages presented by these measurements are (*a*) the ease with which they can be made with the patient in the dorsal decubitus; (*b*) the degree of exactitude which the method renders possible; and (*c*) the manifest advantages for demonstration purposes of seeing simultaneously the limbs which have to be compared.

Mr. J. CROSSLEY WRIGHT read notes of an Epidemic of Hysteria which took place on the girls' side at the Crossley and Porter School. The patients were fourteen in number and varied in age from eleven to fourteen years. The cases occurred between Nov. 11th and 24th, and in the majority one type was distinguishable—viz., clonic rhythmical spasm of the upper limbs varying in intensity between a fine tremor and coarse violent movements involving the whole of the trunk. In some of the cases the elbow-joint was rigidly extended, the fingers being flexed firmly into the palm, while the chief motion was at the shoulder-joint, giving rise to forcible alternate abduction and adduction as well as internal rotation of the whole limb. In two cases there was a distinct hammering action of the clenched fist against the side, table, or against any surface with which it was placed in contact. In a single instance there was spasm of the eyelids, with an occasional quick opening and shutting. No definite cause for the commencement could be made out; some of the girls were working for examination. The treatment was the same in all the cases—viz., isolation, rest in bed, with milk diet, faradaism, a succession of blisters in order to cause pain to the moving parts, and for drugs valerian and bromide of potassium. That which seemed to have the greatest effect was the blistering, and a marked improvement was at once made out.—Dr. BARRS considered that tremor was a common symptom in hysteria.—Dr. EDDISON advocated a more vigorous line of treatment and asked if it was certain that, as Mr. Wright had stated, the movement continued during sleep.

The following card specimens were shown:—The PRESIDENT showed: 1. Part of the Right Lobe of a Liver weighing half a pound, removed for Carcinoma from a patient aged fifty-two. The patient has progressed satisfactorily since the operation a week before. 2. Carcinoma of Small Intestine removed by Enterectomy and Suture over Decalcified Bone Bobbin, the patient recovering eight days after operation. 3. Fractured Internal Semilunar Cartilage removed for lameness which had existed for three years. It had produced all the symptoms of loose cartilage.

Mr. LITTLEWOOD: Case illustrating a New Method of Tendon Suture.

Mr. W. H. BROWN: Case in which the Urachus remains Patent, a large quantity of Urine passing by the Umbilical Opening.

Mr. SECKER WALKER: Case of Severe Symblepharon relieved by a modified Teale's Operation.

Dr. T. WARDROP GRIFFITH showed two cases of Congenital Cardiac Disease. One was diagnosed as of the usual type of pulmonary stenosis, with consequent imperfection of the cardiac septum, and the other presented mixed characters. He also showed a case of a man suffering from Addison's Disease who was entering on a course of Treatment by Suprarenal Extract.

CARDIFF MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—Increase of General Paralysis in England and Wales.

AN ordinary meeting was held on Dec. 6th at the society's new rooms in Queen-street, the President, Alderman EDGAR JONES, M.D. Durh., being in the chair.

Dr. PATERSON showed three cases of Graves's Disease, in all of which there was neither exophthalmos nor V. Graefe's sign.—Dr. C. T. VACHELL thought the slight thyroid enlargement was of a simple nature and the accelerated pulse due to a neurotic temperament.—Dr. JOHN WILLIAMS spoke, and Dr. PATERSON replied.

Mr. J. LYNN THOMAS showed: 1. Scirrhus of Male Breast, the size of an orange. 2. Vermiform Appendix recently amputated after the Seventh Attack of Typhlitis, the patient doing well. 3. Calculous débris removed from the left kidney, the chief symptoms being hæmaturia and extreme irritability of the bladder, the location of the mischief being differentiated by the cystoscope. Eighteen months after the nephrolithotomy the patient's health and urine were normal. 4. Calculus weighing six drachms suprapubically removed from a girl aged nine years. 5. Alternating Calculus weighing six ounces six drachms removed by the combined perineal and suprapubic method. The combined method greatly facilitated the removal of the large stone.—

Dr. HERBERT VACHELL observed on the rarity of scirrhus of the male breast, he having only seen one in the practice of the late Mr. John Wood.—Dr. COOK had seen a calculus in a young girl, and Dr. RHYS GRIFFITHS made some remarks and showed two calculi removed by lateral lithotomy.

Dr. STEWART of Bridgend read a paper on the Increase of General Paralysis in England and Wales. He treated the subject chiefly from the statistical standpoint, and showed in which grades of society and sex the increase took place.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

Exhibition of Cases and Specimens.—Oxaluria.—The Results of Surgical Measures in a Series of Cerebral Cases.

THE second meeting of the seventy-fifth session was held on Dec. 4th, Dr. ARGYLL ROBERTSON, President, being in the chair.

Dr. LUNDIE showed Photographs of a rare Tumour of the Upper Lip in a boy aged thirteen years. The tumour was situated in the thickness of the lip equi-distant from the skin and mucous membrane.—Mr. STILES examined the tumour after removal and reported that it was of the nature of an endothelioma undergoing myxomatous degeneration with here and there cartilaginous development. Two specimens were shown under the microscope.

Dr. ALLAN JAMIESON showed a case of Morphœa or Circumscribed Scleroderma. The disease had begun sixteen months before as a small point-spot under the right eye. Other patches appeared later. They all had a violaceous tint fading on pressure. All the lesions were restricted to the skin supplied by the second and third branches of the fifth nerve. There was no lardaceous deposit.

Dr. FELKIN showed a new form of Safety-pin with a special catch to prevent it becoming accidentally unfastened.

Mr. STILES showed a Pneumatic Rubber Truss for Hernia in Infants. It possessed many advantages over the spring truss, especially in difficult cases. It set up no irritation, and the infant did not grow out of it.

Dr. J. C. DUNLOP read a contribution on Oxaluria and the Secretion of Oxalic Acid in the Urine. The paper was an abstract of work done in the laboratory of the Royal College of Physicians of Edinburgh. He first glanced at the literature of the subject, pointing out the contradictory nature of the chemical and clinical observations. In his early observations he had used Neubauer's method, but this was found so unsatisfactory that a new method had to be devised. Observations with the microscope showed that oxalic acid was frequently present in the urine, and from chemical analysis he found that the urine of all men eating an ordinary mixed diet contained oxalic acid, and that consequently oxalic acid was a normal constituent of the urine. Oxalic acid was usually described as precipitated in the urine as a calcium salt in two forms, octahedral and dumb-bell. The latter, however, he found to be crystals of carbonate, not oxalate. What determined the precipitation of crystals of oxalate of lime had not previously been shown. The balance of evidence seemed to show that precipitation was prevented by the presence of acid phosphate of soda, and possibly by the presence of other solvents. It was not due to the presence of excess of lime. In urines depositing crystals the average percentage of oxalic acid present was found to be 0·0025, while in those not depositing crystals it was 0·0010. He therefore concluded that precipitation showed increased percentage of oxalic acid. Many theories had been advanced to show that oxalic acid could be produced in the metabolic changes of the proteids and carbohydrates, but Dr. Dunlop found that the excretions could be arrested by a restricted diet free from oxalic acid. He hence concluded that food-stuffs were the source of the oxalic acid in the urine, and not the metabolism of proteids or carbohydrates. He had carried the experiments further by adding a substance containing oxalic acid—e.g., tea—to the diet, when an excretion of oxalic acid took place. The clinical condition oxaluria described by Begbie, presented besides the condition of the urine, the well-known symptoms of pains, dyspepsia, and nervous symptoms. The deposition of crystals of oxalate of lime indicated increased excretion of oxalic acid, but to what this increased excretion was due was not indicated by examination of the urine. The pains in the lumbar region were probably due to mechanical irritation due to the passage of the crystals. The dyspeptic symptoms in oxaluria are, Dr. Dunlop considered, identical with acid dyspepsia, and the treatment in both conditions was similar. The nervous symptoms in oxaluria were identical with those in acid dyspepsia. The consideration, then, of all the symptoms of oxaluria showed that it did not differ from acid dyspepsia except that the deposition of oxalate of lime crystals in the urine occurred with more regularity. Oxaluria, he considered, was no pathological entity, and the recognition of oxalates in a urinary deposit had no diagnostic value.—Dr. NOEL PATON complimented Dr. Dunlop on the value of his contribution, and thought he had proved that oxalic acid was not formed by any metabolic process, but taken in the food. Dr. Dunlop had exploded an old and popular fallacy.—Dr. GRAHAM BROWN was not inclined to abandon his old friend oxaluria. Cases had been described where oxaluria and diabetes alternated, and then in dogs, when the respiration was interfered with and dyspnœa produced, oxalates appeared in the urine, which disappeared as the dyspnœa disappeared.—Dr. GILLESPIE suggested that oxalates might be found in the intestines by the action of organisms in starches, &c. He suggested experiments with guaiacol or some other intestinal antiseptic.—Dr. STOCKMAN thought Dr. Dunlop had proved his point that taking a healthy man oxalates in the urine could be got rid of or produced at will. He thought, however, observations should be made on an individual who had the faulty habit of transforming food into oxalates and excreting them.—Dr. JAMES expressed his belief that oxalates might be the result of altered metabolism.—Dr. W. RUSSELL thought there was some misapprehension as to the position of oxaluria. It was not treated as a special disease in all English books, and it had been long known that it was associated with gastro-hepatic derangements. While Dr. Dunlop had proved his main contention in the case of healthy persons, it would be well to make investigations in morbid digestive conditions before it could be absolutely accepted that vegetable food was the sole source of oxalates, and that they might not be derived from other substances, as a result of faulty digestion.

Dr. G. A. GIBSON read a paper on the Results of Surgical Measures in a Series of Cerebral Cases. He gave a record of seven cases of cerebral disease where surgical interference had been considered advisable. Case 1: A patient complained of persistent headache, with loss of power in the left arm and leg. The left side of the face was involved in the paresis, and the speech was indistinct. The pain in the head started from a swelling situated three inches and three-quarters behind the glabella and a little to the right of the middle line. It was evidently of a bony nature. Optic neuritis was present. Syphilis having been excluded, and there being no evidence of tubercle, the tumour was held to be sarcomatous. The patient would not consent to operation. Three months afterwards he was readmitted to the Edinburgh Royal Infirmary in a very much worse condition. Mr. Annandale operated over the middle third of the motor area on the right side and removed a large glio-sarcoma. The patient made an uninterrupted recovery and had remained in good health ever since, having recovered the use of almost all his muscles. Had the operation been performed earlier Dr. Gibson thought in all probability he would have regained more of the power of fine adjustment. Case 2: A man aged thirty years had had syphilis. On admission he was in a torpid state. The pupil reflex was sluggish. The left leg, arm, and side of face were paralysed. Coma supervened. Mr. Alexis Thomson operated in the middle zone of the right Rolandic region. The dura mater and brain bulged very markedly, but nothing abnormal could be found. After the operation the patient recovered consciousness, but there was no improvement in the paralysis. Three days afterwards he collapsed and died. Post mortem a tumour was found occupying the right corpus striatum and the knee and anterior portion of the posterior limb of the internal capsule. Case 3: A married woman complained of headache, giddiness, and difficulty in walking. The headache was deep-seated and strictly localised to the frontal region over the left eye. There was optic neuritis, with nystagmus. The left pupil was larger than the right. There was no paralysis with the exception of the soft palate. The knee-jerks were exaggerated. The gait was staggering, the patient walking with the feet wide apart. Vomiting unassociated with

the ingestion of food was present. The lesion appeared to be cerebellar, on the right side and low down. Dr. Purves Stewart pointed out that the headache might be due to the irritation of the fronto-cerebellar fibres crossing from the left frontal region to the superior cerebellar peduncle. The suggestion seemed a valuable one, and added a symptom of diagnostic value in the study of cerebellar disease. Mr. Annandale operated and removed a tumour from low down in the lateral lobe of the cerebellum, rather closer to the foramen magnum than to the outer wall of the skull The patient made an uninterrupted recovery and had since passed through a normal labour. Case 4: Infantile hemiplegia with convulsions. The skull was trephined, but nothing abnormal was found, and little benefit followed the operation. Case 5: A woman aged forty-seven years suffered from convulsive attacks. The intelligence was weak. She was believed to be suffering from dementia with a focus of irritation on the right side of the cortex. Dr. Cotterill performed an exploratory operation, but no gross lesion could be discovered. The patient died. Post mortem the brain was found to present the histological changes of general paralysis of the insane. Case 6: A man thirty-three months before admission had been injured by a plank falling on his head from a height of thirty feet. Since then he had spent most of his life in bed, suffering from occipital headache, giddiness, inability to walk, and deafness of the left ear. No spasmodic phenomena were present. There were on the head a scar and depression. Mr. Alexis Thomson removed with the wheel-saw an elongated section of bone, including the depression. Case 7: A man was admitted in a comatose state with twitchings of the right side of the face. On the following day he had a localised convulsion, commencing with the right side of the face and spreading to the arm and leg on the same side. This was repeated every ten minutes. Mr. Alexis Thomson operated and removed an extensive blood clot. Nine hours after operation the spasms ceased, but the patient sank and died. Post mortem a fissured fracture was found passing from the left parietal eminence to the middle fossa of the bone.—Dr. PURVES STEWART indicated the anatomical considerations which had led him to think that the frontal headache might be an evidence of cerebellar lesion, and he thought it might prove to be a new, a valuable means of differentiation.—Dr. W. RUSSELL said that the record of cases was such a record as was valuable to the profession, for it gave the whole experience of one man and was not confined to a few successful cases. It was records such as this that were wanted, not only in brain surgery but in the surgery of other regions.

ROYAL INSTITUTION.—The following are certain of the lecture arrangements before Easter: Dr. John Gray McKendrick, Professor of Physiology in the University of Glasgow, six lectures (adapted to a juvenile auditory) on Sound, Hearing, and Speech; Professor Charles Stewart, Fullerian Professor of Physiology, R.I., eleven lectures on the External Covering of Plants and Animals: its Structure and Functions; Mr. H. Marshall Ward, Professor of Botany in the University of Cambridge, three lectures on Some Aspects of Modern Botany; Lord Rayleigh, Professor of Natural Philosophy, R.I., six lectures on Light. The Friday evening meetings will begin on Jan 17th, when a discourse will be given by Lord Rayleigh on More about Argon. Succeeding discourses will probably be given by Professor Burdon Sanderson, Dr. John Murray, Dr. Edward Frankland, Professor T. R. Fraser, Professor Dewar, and other gentlemen.

DISINFECTING PLANT IN ISLINGTON.—The vestry of St. Mary, Islington, have lately invested in the erection of a very complete disinfecting plant and a shelter house for a family invaded by infectious disease. The cost of the station, which is in the middle of the Seven Sisters'-road, is roughly as follows: of two disinfectors, £500; of buildings, including shaft and laundry, £1100; of destructor, £85; of laundry appliances, £125. Besides, there is the cost of the shelter house, £1150. There is now no excuse in this parish for not being thorough in the disinfection of clothes, bedding, and other articles. This is a form of cremation of which all sensible ratepayers must approve. The station is found so useful that some neighbouring parishes contract for its use. Though the outlay may seem large, the cost of work is cheap compared with the old rates of disinfecting clothing, &c.

Rebiews and Notices of Books.

Clinical Illustrations of the Diseases of the Fallopian Tubes and of Tubal Gestation. A Series of Drawings, with Descriptive Text and Histories of the Cases. By CHARLES J. CULLINGWORTH, M.D., Hon. D.C.L. Durh., F.R.C.P., Obstetric Physician to St. Thomas's Hospital, London; Examiner in Obstetric Medicine at the Victoria University; late Examiner at the University of London and the Royal College of Physicians, London; Hon. Fellow of the American Gynæcological Society, &c. London: Rivington, Percival, and Co., King-street, Covent-garden. 1895. Price 12*s.* 6*d.*

WE do not know that this work could have been subjected to a better test than that to which we have put it—namely, we have recently had occasion to refer to it in connexion with a case under treatment and have found it practically helpful. The author says that it has for some years been his intention to publish a series of illustrations of the diseases of the Fallopian tubes. The present work is the outcome of that intention. All the drawings are from specimens removed in the course of his own operative work; they are consequently taken from actual specimens, and are accompanied by a clinical history of each case, with the view of furnishing his readers with clearer ideas respecting tubal disease, and enabling them more fully to realise the processes actually taking place in such cases. We can only say that the drawings seem to us to be very useful and accurate delineations, some of the coloured ones being especially so, the artist having succeeded uncommonly well in producing effective pictures of morbid conditions which are true to nature. The author, alluding to the frontispiece representing the normal tubes as they are found in the living subject, takes the opportunity of making a few pertinent observations about this anatomical region. A good drawing of the parts contained in this region, as seen from behind in the healthy adult, affords information which is obviously an essential preliminary to a recognition of the anatomical changes induced by disease, and the frontispiece supplies this desideratum.

In addition to other illustrations there are altogether fourteen plates of a larger size illustrative of Hydro-salpinx, Purulent Salpingitis, Pyo-salpinx simulating Tubo-ovarian Disease, Hæmato-salpinx, Unruptured Tubal Gestation with Apoplexy of Ovum, Ruptured Tubal Gestation, and Primary Carcinoma of the Fallopian Tube. A descriptive text giving the clinical features of the cases in a very pertinent and brief way, together with a summary on Salpingitis and Tubal Gestation, complete the volume. We trust that we have said sufficient as to the nature and contents of this work and of its series of illustrations of the diseases of the Fallopian tubes to indicate its eminently useful and practical character and the opinion we entertain of its merits.

Guy's Hospital Reports. Vol. LI. 1894. Edited by C. E. PERRY, M.A., M.D., and W. H. A. JACOBSON, M.A., M.Ch. London: J. & A. Churchill. 1895.

THIS volume consists chiefly of a series of articles based on cases which have occurred in Guy's Hospital at various times. Mr. L. A. Dunn records the sequel of a case of Fractured Pelvis with Ruptured Urethra, which was reported in Vol. XLIV., and the same author gives an account of a case of Multiple Atrophying Sarcomata of the Head and Neck. An abstract of a paper by Mr. Bryant gives some interesting information concerning temperature after operations. Dr. Hale White and Dr. Chaning Pearce contribute a very interesting article on Empyema following Lobar Pneumonia. Notes and temperature charts are given of twenty-six cases which were treated in the

hospital between 1884 and 1894, inclusive, and the authors conclude that this complication has become more common now than in former times. Dr. John Fawcett has made a series of experiments with regard to the Efficiency of Piperazin in the Treatment of Gout, and does not think the drug so useful as many have supposed. Mr. F. Newland-Pedley writes two papers; one is on the Treatment of Suppuration of the Maxillary Antrum, and the other on the Treatment of Congenital Cleft Palate. Dr. Theodore Fisher gives an account of Some Researches into the Pathology of Hypertrophy of the Heart without Gross Organic Lesion. Mr. G. B. Smith discusses the question of Amputation in Senile Gangrene. Dr. Turner writes on Scarlatinal Nephritis and Dr. Silk on the Administration of Gas and Ether. Dr. Pye-Smith reports a case of Bilateral Paralysis of Facial and Auditory Nerves. A list of specimens lately added to the museum and the names of students who have passed examinations or received appointments end the volume, which is from first to last very interesting.

The Life of Sir Henry Halford. By WILLIAM MUNK, M.D. Leyden, F.R.C.P. Lond. London: Longmans and Co. 1895.

THE scholarly and accomplished librarian of the Royal College of Physicians of London has in this book set forth, at the express desire of the above-mentioned body, the life of one of the most celebrated of its members. Henry Vaughan, afterwards Halford, was the second son of James Vaughan, M.D., of Leicester, and was born in 1766. He was educated at Rugby and Christ Church, and from 1786 to 1789 studied medicine at Edinburgh. In 1792 he commenced practice at Scarborough, but at the end of that year started in London on a capital of £1000 borrowed from Lady Apreece, a friend and patient. In 1793 he was appointed physician to the Middlesex Hospital, and probably owing to his "Oxford connexions, his classical attainments, and his pleasing manners," was sworn physician extraordinary to the King before he was twenty-seven. In 1806 he gained great reputation by correctly diagnosing the disease from which the Duchess of Devonshire—Gainsborough's Duchess—was suffering, maintaining, in opposition to the whole of his colleagues, that she had hepatic abscess, and the accuracy of his diagnosis was proved by post-mortem examination. In 1809 he assumed the name of Halford on succeeding to the estate of Wistow and was created a baronet. In 1820 he was elected President of the Royal College of Physicians of London, a post he held until his death in 1844. We cannot here enter into all the details of his long career, of his close association with Royalty—he was physician to George III., George IV., William IV., and her present Most Gracious Majesty—of his services to the Royal College of Physicians, a body in which he took a most sincere interest: for all these the reader must refer to the pages of Dr. Munk's most interesting book.

As a picture of the manners of a bygone age the book is singularly faithful. Take the letter of the Royal College of Physicians in answer to the King's (George IV.) letter stating that the President of the College for the time being should always hold the office of physician in ordinary to the sovereign (pp. 104–5). We should have much liked to hear Thackeray's opinion of it. Again, take the letter of Sir Henry Halford and Sir William Knighton to George IV. dissuading him from attending the funeral of his father (pp. 175–6).

Sire,—We your Majesty's physicians venture humbly to approach your Majesty to implore your Majesty to forego that satisfaction to your feelings which your Majesty attaches to a performance of the last act of filial piety to the late King your Majesty's father. We are scarcely yet relieved from that state of anxiety and alarm which your Majesty's dangerous illness gave rise to and from which your Majesty is only just extricated under the mercy of heaven. We cannot therefore contemplate an indulgence of your Majesty's wishes without absolute dismay, seeing the probability of a relapse in consequence of the exposure of your Majesty's person to the night air in a cathedral, under that anguish of mind which your Majesty was observed by everybody so painfully to suffer at the performance of the same sad ceremony last year.

And we humbly entreat your Majesty to yield not to our wishes only but to those of the whole nation, which would be expressed, we are persuaded, if it were generally known that your Majesty meditated this dangerous effort of respect and piety.

HENRY HALFORD.
WILLIAM KNIGHTON.

It seems unkind to remind a son of the satisfaction to his feelings at burying his father, and as the son was observed to suffer "anguish of mind at the same sad ceremony last year" we cannot see why he was so anxious to bury his father again. Well, well, "Sir George Catacomb had the confidence of his sovereign, sir," as MRS. Frank Berry remarked upon a memorable occasion. With all his faults—and Dr. Munk does not disguise them—Sir Henry Halford seems to have been a capable physician, and, above all, a master of what perhaps we are too prone to forget now—the art of giving a patient ease and comfort as well as of treating the disease itself. Perhaps this book will take the place of that inscription in the Library of the Royal College of Physicians which that body unanimously decided in 1844 to put up, but for which the Library walls still sigh.

LIBRARY TABLE.

The Art of Horse-shoeing: a Manual for Farriers. By W. HUNTING, F.R.C.V.S. London: H. and W. Brown. 1895. Price 3*s.* 6*d.*—IF horses are not properly shod it cannot be because of any lack of directions as to how this necessary act should be performed, as the literature of the subject may now be described as superabundant. In this addition to it, which is professedly written for farriers—horse-shoers, it may be presumed, are meant, for veterinary surgeons are very commonly designated farriers, particularly so in rural districts—the old ground is gone over, and we find a *réchauffé* of the descriptions and directions which have been so often served up, perhaps with the view of making them more palatable each time. They are good so far as they go, because they are founded on common-sense notions of what is necessary to keep the horse's foot healthy and render the services of the animal more efficient and durable, and also because they have the results of a great many years' experience—some of them more than a century old—as evidence of their utility, although they have only too frequently been overlooked or ignored.

Elements of Human Physiology. By ERNEST H. STARLING, M.D. Lond. Second edition. Pp. 454. London: J. & A. Churchill. 1895. Price 7*s.* 6*d.*—This edition of Dr. Starling's useful little manual for the student of physiology has been carefully revised. The author has been prudent in not materially augmenting the size of the volume. What the beginner requires is not so much the newest theories but old and well ascertained facts arranged in due sequence and clearly explained. This work is one of the best of those which aim only at giving the student such a groundwork of physiological knowledge as will fit him to understand and guide him in the practice of medicine, without compelling him to wade through much irrelevant matter which would, perhaps, be serviceable to him if he were qualifying for a professorship.

London Temperance Hospital: Report on Surgical and Ophthalmic Cases for 1894. London: J. Vincent and Son. 1895.—This report is edited by Dr. Leonard Wilde and contains tabulated lists of the various cases which were treated in the hospital. The total number of surgical cases admitted in 1894 was 572, of which 95 were ophthalmic cases. Particulars of more important operations are given as well as abstracts of the pathological conditions in fatal cases.

There is also a full report of all the operations on the eye, with details of operations for extraction of hard cataract, from 1888 to 1894, inclusive. In the appendix it is stated that alcohol was not administered to any patient during 1894.

Cutaneous Medicine. Part I. By LOUIS A. DUHRING, M.D. Philadelphia and London: J. P. Lippincott Company. 1895.—This is a systematic work on Diseases of the Skin, which is intended to take the place of the author's "Practical Treatise on Diseases of the Skin," which is now out of print. An attempt is made in this new work to show the broad relations which the functions and diseases of the skin bear to the functions and diseases of the other systems of the body, and in so doing to give due attention to general diseases when local manifestations are the prominent symptoms. Part I. gives a good account of the general anatomy and physiology of the skin, and is made clearer by the presence of numerous excellent diagrams taken from many standard authors. The remainder of Part I. is taken up with general considerations regarding symptoms, etiology, pathology, diagnosis, treatment, and prognosis. There are numerous literary references throughout the work which add much to its value.

Hazelton: a Northumbrian Story. By Dr. WILLIAM MURRAY. Newcastle-on-Tyne: J. McCan.—It is well known that many of the busiest and most responsible members of the profession find their recreation in good novel-reading, and, indeed, that some of them are rather voracious in this respect; but few of them carry the recreation to the further point of writing novels. An instance to the contrary is before us in the shape of a very readable and commendably short novel by Dr. William Murray. "Hazelton, a Northumbrian Story," is redolent of that region, with the fine salmon-fishing rivers of the North Tyne, the Cheviot Hills, and other characteristic scenery. Dr. Murray displays a familiarity with the life of the natives in every grade of society, from the gamekeeper to the squire and the lord. He treats of young ladies and gentlemen in the perplexity of the love period of their lives and the perplexities of their suitors, together with the troubles of their seniors over other and deeper problems which make the interest of good novels. He writes on such subjects as easily as if he had written on them before, or should have done so, and out of the experience which an observing physician has of human life. We commend the story to our readers as one thoroughly sound in its tone and very readable—characteristics constituting great charms in such literature. The Northumbrian dialect may at first sight be a slight stumbling-block to some readers; but Dr. Murray renders it accurately as one to the manner born and guides us safely through the most difficult passages.

Contribution à l'Étude de l'Atrophie Musculaire Progressive, type Duchenne-Aran. Par le Dr. J. B. CHARCOT, Ancien Interne des Hôpitaux. Paris: Félix Alcan. 1895. (*Contribution to the Study of Progressive Muscular Atrophy, type of Duchenne-Aran.* By Dr. J. B. CHARCOT.)—This essay, the first literary venture of its author, is dedicated by him to the memory of his illustrious father. In the thoroughness and fidelity with which the task is executed, and the clearness with which the thesis is expounded, we recognise that the son has inherited those gifts of intellect which have made the name of Charcot world-famous. The aim of his present contribution to science is to re-establish as a distinct clinical and pathological entity that disease with which the names of Duchenne and Aran are indissolubly associated. Twenty years ago "progressive muscular atrophy" was an affection which figured prominently in the nosology, and the connexion of which with degeneration of the anterior cornua of the spinal cord was regarded as a leading example of the trophic influence of the nerve cells of that region. But the advance of neurology led to a remarkable disintegration of the affections included under the common term, and no work did more to this purpose than the demonstration by Professor Charcot himself of the fact that many a case was really due to secondary involvement of the grey matter in a sclerosis originating in the lateral columns. The study of multiple neuritis, of syringomyelia, and of primary myopathic atrophies still further reduced the domain of chronic anterior poliomyelitis, so that not a few of the most distinguished neurologists openly declared that it had no independent existence. Even Professor Charcot himself, his son informs us, was somewhat shaken in his belief in the existence of a protopathic spinal amyotrophy by finding in later years that cases which he had previously considered to be of this order were really of the nature of syringomyelia. Dr. J. B. Charcot, however, produces in this essay arguments and facts which tend in the other direction. He gives a full record of five cases personally observed in the Salpêtrière Hospital, two of which are completed by details of post-mortem examination; and he concludes that the Duchenne-Aran type of progressive muscular atrophy is a morbid entity absolutely distinct from amyotrophic lateral sclerosis. To be sure, he points out that accompanying the nerve-cell degeneration in the anterior cornua there is a zone of sclerosis in the direct pyramidal tract, but he regards this latter, quite reasonably, as being immediately dependent upon the nerve cell lesions. As we have said, the essay is lucidly written and its reasoning well sustained. It is further illustrated by some excellent pathological drawings. We trust that it will prove to be the forerunner of many important contributions to neurology from the same pen.

CHRISTMAS BOOKS.

Messrs. Blackie and Son send us, besides those we mentioned in our issue of Dec. 7th, the following books:

Through Russian Snows: a Story of Napoleon's Retreat from Moscow. By G. A. HENTY.—*A Knight of the White Cross: a Tale of the Siege of Rhodes.* By G. A. HENTY.—Mr. Henty has the faculty of really interesting boys (and many girls too), and he has told his story of Napoleon's retreat from Moscow with such spirit that it is one of the best he has written. It is the story of two boys who were left orphans, one of whom, after being taken prisoner for alleged smuggling and a suspicion of murder, volunteered for the French army on the condition that he would not be required to fight against the English; and the other, holding a commission in the English army, was offered an appointment on the staff of a Russian General on account of his knowledge of the Russian language. They both went through the Franco-Russian war of the first Napoleon and finally met at the conclusion of the campaign. The second story deals with the struggle between Christianity and Mahomedanism and the great part played by the Order of the Knights of St. John against the Turks. The story, which is well told, deals with the first siege of Rhodes, in which the author has no difficulty in finding plenty of incident and excitement to sustain the interest of his readers.

A Thane of Wessex. By C. W. WHISTLER.—This is a well told story, which, although written in a professedly archaic style, does not bore the reader as many modern archaisms do. The subject is the great Viking raid of 845, and tells how Heregar was outlawed on a false accusation of treason. He discovered the war ships of the Vikings, gave warning to his countrymen, and finally by strategy defeated the Danes at the mouth of the Parret, and was thereupon taken into favour again. The account of the battle is quite Homeric in its force and simplicity. Mr. W. H. Margetson's illustrations are good although anachronistic. We are sure

there was not any Norman architecture at Glastonbury in 845, nor do we think that the habit of a Benedictine nun in those days was white.

At War with Pontiac. By KIRK MUNROE.—This is a capital story of Indian warfare in America. The hero passes successfully through some thrilling a ventures, being protected by a tattoo mark of the Bear Totem. He finally marries the daughter of Pontiac, the great chief, she being an eighteenth-century Pocahontas, but, luckier than her prototype, she lives happily with the man whose life she saved.

The Tiger of Mysore. By G. A. HENTY.—Any book about India ought to be interesting to English boys, and doubly so when written by such a good story-teller as Mr. Henty. "The Tiger of Mysore" is a tale of the times of Tippoo Saib; the adventures of Dick Holland in the attempt to rescue his father—an enthralling scene with the Tiger in the harem—and the escape from the hill fort being two episodes which stand out among a number of others.

Mr. T. Fisher Unwin sends us:

Dog Stories from the "Spectator." With an Introduction by J. ST. LOE STRACHEY.—This volume consists of selections from the correspondence columns of the *Spectator* descriptive of the intelligence, reasoning power, and sympathy of dogs. The selections are both good and interesting. All of us are fond of animals, boys and girls especially so, we are glad to say, for there is nothing more natural, wholesome, or beneficial than the cultivation of the humane and sympathetic sides of our natures. All who have read the letters that have appeared from time to time in our contemporary will be glad to renew their acquaintance with them in a collected form, and those who have not done so will peruse this volume with a fresh and lively interest.

Among the Gnomes. By FRANCIS HARTMANN, M.D.—The book is a far-off following of Peacock's satires, and though well done in places is, on the whole, heavy.

The Chain of Gold, by STANDISH O'GRADY, is an admirable tale of the adventures of two boys on the wild west coast of Ireland. The shifts to which the castaways are put and their ingenuity in overcoming them are vividly told, and the slight admixture of the supernatural in the story is quite in keeping with the Celtic spirit.

Stories for Ten-Year-Olds. By FRANCIS WILCE SAUNDERS. Series I. London: Swan Sonnenschein and Co. 1895. 2*s.* 6*d.*—We think these little sketches and stories are better suited to those who are over than under ten years of age. Many of them are no doubt clever and suggestive, but to be fully appreciated they seem to us to require a sense of humour and a power of reading between the lines which boys and girls often do not possess, and the style and language are not sufficiently clear, simple, and direct.

DECEMBER JOURNALS AND MAGAZINES.

The Medical Chronicle.—Dr. D. J. Leech contributes his paper on "Our Forefathers" which was read at the opening session of the Yorkshire Medical College on Oct. 1st, 1895, and an abstract of which was printed in our issue of Oct. 5th. Dr. Kelynack publishes an interesting series of cases showing the Connexion between Alcoholic Neuritis and Pulmonary Tuberculosis. Mr. E. H. Howlett contributes Notes of a Case of Tetanus following a Gunshot Wound successfully treated with Tetanus Antitoxin.

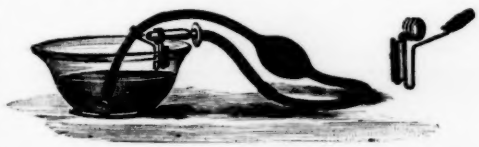
The American Journal of the Medical Sciences.—Among the many good papers in this periodical are Dr. William Osler's dealing with the Visceral Complications of Exudative Erythema, and Dr. R. T. Hall's upon Craniotomy for Epilepsy. Dr. Louis Starr gives a series of cases of Scurvy occurring in children fed upon sterilised milk.

The Practitioner.—Dr. R. T. Hewlett has an admirable paper upon Antitoxin Treatment.

New Inventions.

A BASIN ENEMA CLIP.

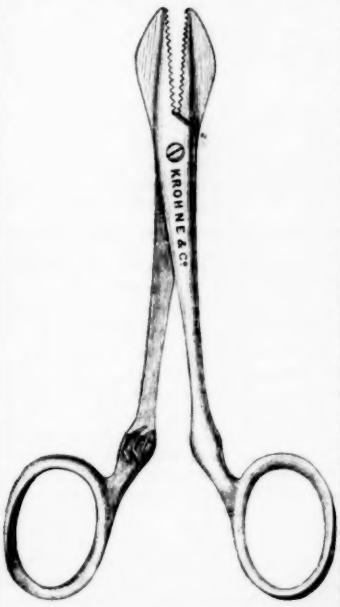
MESSRS. REYNOLDS AND BRANSON, 13, Briggate, Leeds, have sent us an ingenious and useful little appliance, one which will be a real convenience to medical men and nurses. The clip will hold the tail of any enema syringe firmly at the bottom of the basin, beneath the liquid, making the entrance of air impossible. It also has another very great



advantage in acting as a rest for the bone rectal (or vaginal) pipe after the enema has been used, and so avoiding the wetting of bed linen or making a mess on the floor or table. The illustration shows the clip at one-third its size. The price is 6*d.* (post-free 7*d.*), or 5*s.* per dozen.

IMPROVED CLIP FOR LIGATURING VESSELS.

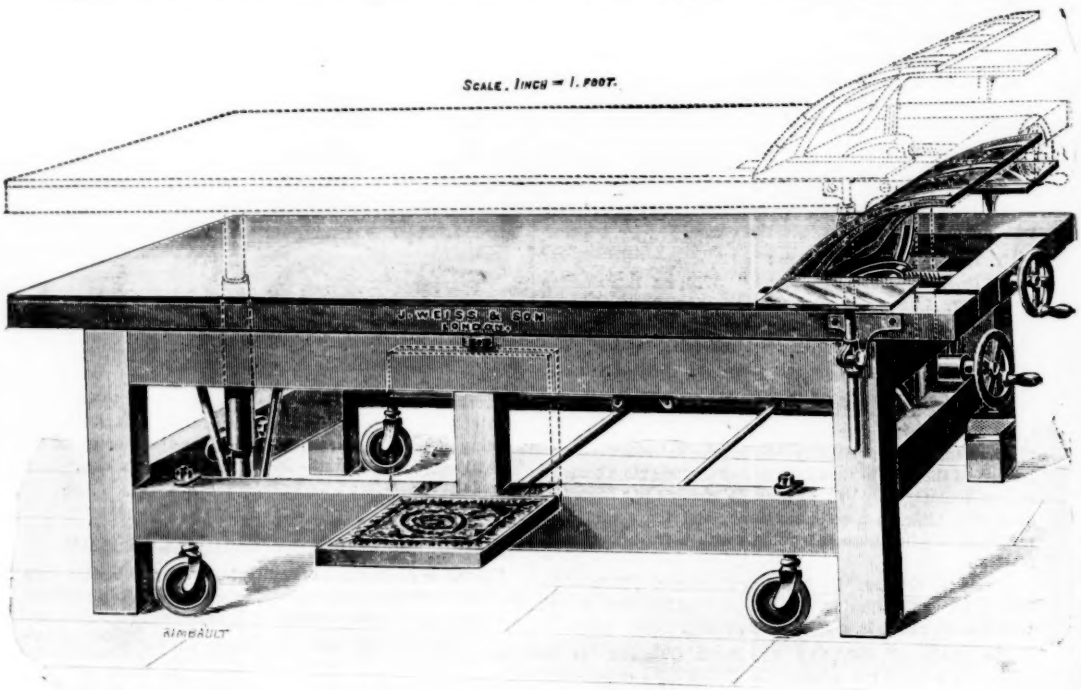
THERE is often some difficulty in ligaturing vessels over the ordinary Spencer Wells'clip, especially in deep wounds. Either the point of the instrument is included in the ligature, or in trying to avoid this the clip is torn off the vessel. In the modification shown in the illustration I have tried to combine the convenience of a tenaculum with the advantages of forci-pressure. A thin, curved flange projects from the blades of the clip in the plane of the handles and guides the ligature over the point. In other respects the clip is unaltered. Frequent trials (for which I have to thank the surgeons of St. George's Hospital) have shown that the instrument works well. The slight widening of the blades seems to involve no practical inconvenience. I am indebted to Messrs. Krohne and Co., of Duke-street, Manchester-square, for the great trouble they have taken in working out the idea.



ARTHUR H. WARD, F.R.C.S.Eng.,
Surgeon, London Lock Hospital; Surgical Registrar, St. George's Hospital.
Hertford-street, W.

TABLE SPECIALLY DESIGNED FOR OPHTHALMIC OPERATIONS.

IN accordance with instructions prepared by the medical staff of the Royal London Ophthalmic Hospital, Moorfields, Messrs. John Weiss and Son, 287, Oxford-street, W., have designed and made a new table for the operating-theatre, having the following among other advantages—viz.: The top of the table is of solid mahogany, 6 ft. by 2 ft., which, together with the frame, can be raised ten inches by means of suitable gearing worked by a hand-wheel, the minimum height being 2 ft. and the maximum 2 ft. 10 in. from the ground. The table is perfectly firm whatever be the level of the top. The leverage is such that the top of the table carrying a heavy man can be easily raised by turning the wheel with one hand alone. The headpiece, on being raised by a screw action, takes the form of a pillow the height of which is adjustable. By means of a foot lever the table can be lifted off its legs on to rubber-tyred wheels to facilitate the movement of the table from place to place with or without its burden. Each side of the table has an adjustable support to carry the instrument trays, &c., also a step to allow of the patient reaching the floor without the height being altered.



CHRISTMAS HOLIDAYS.—The Hook of Holland route of the Great Eastern Railway Company offers exceptional facilities to persons who wish to spend their Christmas holidays in Holland or Germany. Passengers from the midland counties or north of England can travel direct to Parkeston Quay, Harwich, and with the passengers leaving London in the evening arrive at the chief Dutch cities the following morning, while through carriages run to Cologne and Berlin on arrival of the steamers at the Hook of Holland, reaching Cologne about midday and Berlin the evening after leaving London. The steamers will run between Harwich, the Hook of Holland, and Rotterdam every evening, including Christmas Day, but on the Harwich—Antwerp service, which is the best route for passengers visiting Belgium, the steamers will run every week-day, exclusive of Christmas Day. Passengers for Hamburg by the General Steam Navigation Company's service should start on Saturday, Dec. 21st, as the steamers will not run on Christmas Day.—The London and North-Western Company announce that the ticket offices at Euston, Broad-street, Kensington, and Willesden Junction will be open throughout the day from Monday, Dec. 16th, to Monday, Dec. 23rd, inclusive, so that passengers wishing to obtain tickets for any destination on the London and North-Western Railway can do so at any time of the day prior to the starting of the train. Tickets dated to suit the convenience of passengers can be obtained at any time (Sundays and Bank Holidays excepted) at the town receiving offices of the company. On Tuesday, Dec. 24th, a special train will leave Willesden Junction at 2.55 P.M. for Bletchley, Wolverton, Rugby, principal stations on the Trent Valley line, and Stafford in advance of the 2.45 P.M. ordinary train from London (Euston). The 4.30 P.M., Euston to Birmingham, will be divided; the first portion will run express to Coventry and Birmingham, and leave Euston at 4.25 P.M.; the second portion of the train will leave Euston at 4.30 P.M. as usual. The night Irish mail, due to leave Euston at 8.20 P.M., will not leave until 9.5 P.M. The mail steamer for Kingstown will await the arrival of the train at Holyhead. On Christmas Day a special train will leave Euston at 6.15 A.M. for Northampton, Rugby, Birmingham, Stafford, Stoke, Crewe, Manchester, Liverpool, Chester, Ireland, Lancaster, Preston, Carlisle, Edinburgh, Glasgow, &c. The company also announce cheap excursions to Coventry, Leamington, Birmingham, South Staffordshire stations, Wolverhampton, Nuneaton, Liverpool, Warrington, Lancaster, the English Lake District, Manchester, Oldham, Stoke, Chester, North and South Wales, and the Cambrian line, Shrewsbury, Carlisle, Scotland, Ireland, &c.

THE LANCET.

LONDON: SATURDAY, DECEMBER 14, 1895.

THE limits of a medical man's duty to the dependent classes form a subject of great interest and importance, and this has been well handled in an able article by Dr. JAMES WALK in a paper read before the American Academy of Medicine at Baltimore on May 4th of this year. It is obvious that our American *confrères* suffer as severely as we do from over-competition and crowding of professional men, and especially from unjust imposition of gratuitous work. The medical student of to-day has the greater part of his training devoted to the physical sciences. In former times the tyro engaged in professional visits with his preceptor and acquired not only remedial science but the methods of dealing with men and women in their moral, social, and business aspects. The ordinary medical charities, crowded with patients, are not the only outlets for the superabundant philanthropy of the young physician or surgeon. It is a growing notion that the medical man should treat free of charge all the dependents of his neighbourhood. Upwards of 20 per cent. of the population of Philadelphia receive free medical treatment. In the crowded out-patient departments of dispensaries and hospitals what opportunity is there for that careful and systematic investigation of cases which alone is of true clinical value? The wholesale system of gratuitous medical relief pauperises the community. The younger medical men are defrauded of their share in practice, and the whole profession is injured and degraded. The enormity of the evil may lead to a powerful revulsion of feeling, within and without the profession. The article, written in a moderate tone, certainly does not show an encouraging aspect of affairs in America. Any candid observer must assert that in our own country, especially in the large towns and centres of civilisation, matters are little better, though we have good reason to believe that in this country the "special hospitals" are perhaps the most abused.

It is a lamentable fact that the training of many a modern scientific student does little to fit him for the practical duties of his profession, especially in its business aspects. The advice not uncommonly given by senior members of the profession to juniors just emerged as fully fledged practitioners is somewhat as follows: "Now you have passed your examinations, go and learn your profession by acting as assistant." Be this as it may, many young consultants and practitioners are strangely deficient in even that rudimentary business capacity which would be essential towards the successful conduct of any other occupation or profession. The enthusiastic physician or surgeon who occupies years of his life in crowded out-patient departments will assuredly waste his time unless he turns his opportunities for the investigation of disease to account. The crowds of patients, as well as the deficient accommodation, not uncommonly quite prevent this. Of the scores of individuals who occupy his time, and who dub him by the suggestive epithet of the "free doctor," not a few, if closely questioned, would be found to be well able to pay the customary fee for consultation. We do not believe that matters are quite as bad in this country as in America; anyone, however, who perused the addresses of representative practitioners in the ethical section at the recent meeting of the British Medical Association could not fail to be struck with the serious tone which pervaded many of the sentiments uttered regarding such matters as hospital abuse and club practice. The evil is already "sufficiently enormous" in this country to call for the most serious attention on the part of all the younger members of the profession. As regards the matter of hospital abuse, this lies almost entirely in the hands of the profession itself. In this connexion we may recall to our readers the valuable paper of Messrs. GRIFFITHS and HORDER, published in our issue of Nov. 30th. The paper embodied the results of an elaborate inquiry undertaken by these gentlemen into the matter of abuse of medical charities and contains a number of most practical suggestions. We cannot commend the wisdom or *savoir faire* of any consultant who gratuitously gives away his services at a hospital to a patient who can pay him a fee. We do not altogether think well of the medical or business capacity of any family practitioner who allows his patient to drift to a hospital through his tardiness in suggesting a consultation; still less do we approve of the custom, which is alleged to be gaining ground in London, of practitioners sending their patients to hospitals to obtain gratuitous opinions. It is almost an established fact that three-fourths of the accident practice in London is done gratuitously at the hospitals. While no one can be refused first aid at a hospital, be he peer or be he pauper, we would most earnestly urge the surgeons of hospitals situated in fashionable localities of large towns to exercise very close supervision in this matter. So soon as a simple fracture has united, or is safely placed in retentive apparatus, the patient should be dismissed to his own house under the care of his own medical man, or to one of the many excellent private institutions which exist for care and nursing. There is little reason why such cases as wounds of the radial artery or fractures of the bones of the upper extremity, after receiving the immediate aid which they demand, should not at once be consigned to the care of the patient's own medical man, who in his turn may ask the consultative advice of any surgeon he chooses. To treat cases of this nature in well-to-do persons gratuitously is the worst form of hospital abuse. All the junior officers of large hospitals, especially the house surgeons, should be instructed to see into each case and report on it in writing to the secretary of the hospital or other responsible officer. Practitioners in the neighbourhood of a hospital would confer a great boon upon the profession if they reported to the secretaries any cases coming under their cognisance where their patients are abusing the purposes of charitable institutions. We hope that consultants at the hospitals will take these remarks, which are offered in no captious spirit, seriously to heart. We trust also that practitioners will coöperate with them in the duties of self-protection. The hour has arrived when members of our profession should cease to give their time and labour to those who, although they

can find money for the theatre or a trip to the seaside, go to a hospital when they are ill. Such persons, who are numerous enough in London as well as Philadelphia, usually take a professional man at his own value and, on one pretence or another, are constantly emulating the daughters of the horse-leech and crying, "Give, give!" So far as teaching opportunities go, benefit would certainly be conferred upon the hospitals by limiting the number of out-patients, and at certain well-known institutions this has already been done. Sufficient material can readily be found among the ranks of the really poor, who alone should share the benefits of charitable funds.

We note with satisfaction that one of our large London hospitals has recently increased its teaching staff—an example which may be well followed by others. If, in addition to increasing the care and facilities in teaching, the medical officers of our hospitals would once and for all set their faces against gratuitous relief to those who have means, they would be helping a reform which could not fail to meet with all support from the rank and file of the profession, and with the approbation of the right-minded section of the public, who would recognise that their charitable bequests were not wrongly used. The growing generation of students would learn a useful and lasting lesson—viz., that, though kindness and philanthropy should ever be practised by every medical man, he should most jealously guard against abuse in these particulars and exemplify throughout his life the adage that every man has a right to expect and receive adequate pecuniary reward for his labours.

To the question what shall we drink, to discuss which at this season of the year seems a little odd, Mr. RADCLIFFE COOKE in the *Times* of the 9th inst., backed by a leading article in the same issue, would reply, cider. With the economic and industrial aspect of the question, which is a very important consideration, we have little to do beyond expressing our entire approval of any movement that is calculated to warm into life and vigour a well-nigh extinct home industry. We turn, then, to consider what are the qualities and special characteristics of cider upon which its recommendation as a popular drink could be based. In this connexion there is little doubt that cider has not been very favourably regarded, because no special care or attention has been paid by cider makers to the exact conditions which would ensure the production from the apple of a uniform and palatable drink. The use of materials that are chosen with little regard to their quality—as, for example, damaged fruit, or fruit looked upon as of no good for any other purpose than cider making—has operated largely against its taking rank on any extensive scale with other better-known beverages. The process of fermentation has hitherto been conducted in a slipshod, rule-of-thumb way, without regard being given to the minutiæ of the process. What wonder, then, that cider has not been popular except amongst a few country people in those counties where it is chiefly produced. Yet there is no reason at all why there should be any uncertainty as to the ultimate condition of cider, any more than there should be of beer or claret. The composition of good cider is not widely different from light claret, except that instead of tartrates and tartaric acid it contains malates and malic acid, the characteristic acid of most fruits, and the proportion of spirit is less.

The average composition of still cider is as follows: 4·88 per cent. alcohol, 0·33 per cent. malic acid, 1 per cent. acetic acid, 4 per cent. sugar; of champagne and effervescing cider, 3·5 per cent. alcohol, 0·35 malic acid, 0·05 acetic acid, 6 per cent. sugar; of bottled Hereford cider, 5 per cent. alcohol, 0·3 per cent. malic acid, 0·1 per cent. acetic acid, 1 per cent. sugar. The latter may be described, like some champagnes, as dry. Success in the making of cider is favoured also by carrying on the process of fermentation like that of lager beer at a moderately low temperature, when the sugar is rapidly converted into alcohol and carbonic acid. Otherwise, if the alcohol be slowly produced, organisms rapidly make their appearance, producing acetous and possibly also lactous fermentation. These are the enemies of the cider-maker, and of course fatal to the production of a palatable drink. It is worthy of remark that the alcohol of well-made cider is, owing probably to the low temperature employed, particularly pure, and on distillation yields a spirit of excellent character and from which very good brandy may be made. It is free from other alcohols and allied products, which doubtless contribute to the stupefying and heavy qualities of strong English beers brewed at comparatively high temperatures. This alone is a fact in favour of cider as a beverage. The fruit acid of cider, however, is not thrown out of solution as the alcohol increases, as is the case with certain wines. The delicate flavour and agreeable fruity aroma of unsophisticated cider are due to the extraction of the essential oils of the pips and skins of the fruit by the alcohol produced, the alcohol itself being rich in compound ethers. It is to malic acid that cider owes its pleasant acidity, and the presence as well of alkaline salts and malates (which produce alkaline salts) gives cider its diuretic and slightly aperient properties. On this account cider would seem to be a useful beverage for the gouty and those who suffer from uric acid deposits, the expulsion of which it is said to favour. But for this purpose, as, indeed, for general purposes, the cider must be sound. If sound and genuine cider be placed upon the market with a guarantee we make no doubt that the demand for it will rapidly increase, and when the public once find out for themselves the really wholesome and refreshing qualities of genuine cider the nasty preparation purporting to be cider will be banished, a home industry will be restored to the position it ought never to have lost, and an agreeable and mildly stimulating beverage will be available which, if consumed rationally, will be found free from the objectionable qualities of many beverages that unfortunately are only too highly held in popular esteem. Sound cider, on the other hand, should possess to an equal degree the refreshing and harmlessly exhilarating properties of genuine light grape wines, the consumption of which abroad, to the exclusion of ardent spirits, has had a distinctly healthy and moral effect upon the people.

WE are sorry for the managers of the Metropolitan Asylums Board. A task at once impossible and ungracious

has been assigned to them, and they are getting that plentiful blame which awaits gentlemen in our happy country who undertake such tasks without fee or reward. All sorts of faults are attributed to them. They do not supply an amount of accommodation for infectious cases equal to the demand; they dismiss, or their medical officers dismiss, cases before they are free from infection, and thus give rise to fresh cases of the very diseases for the restriction of which they were elected. They spend money like water to the figure perhaps of half a million a year, and one of their own number has been unkind enough to suggest that some members of the Board, or of its committees, pay ridiculously large prices for sites, and that there is a suspicion of personal profit and advantage in the transactions. We may say at the outset that we have little belief in the truth of these suggestions. It is undoubtedly tempting to men dealing with such large sums of public money and with contracts of such magnitude—and knowing also the difficulty which the Board has in finding a local habitation for its unpopular hospitals—to turn to personal advantage circumstances of which they have early or exclusive knowledge. But, fortunately, in both Imperial and Local administration there has always been amongst us an abundant supply of men of ability and standing who were "above suspicion." And until the contrary is shown by very much more evidence than Mr. ELLIOTT has produced, we shall have implicit confidence in the integrity of the managers of the Metropolitan Asylums Board. Sir EDWIN GALSWORTHY dealt admirably with Mr. ELLIOTT'S suggestions and his demand for an inquiry. He refused to be content with any inquiry by a committee of the Board, and moved an amendment for investigation by the Local Government Board. This was a dignified course, and one that will be entirely satisfactory to the public.

This was by far the least interesting part of the business before the Board at its meeting on Saturday last. The great interest of the meeting was in the complaints from all quarters of the inadequacy of the accommodation provided by the Board, and the pressure put on it to open Gore Farm—now used for small-pox cases—for fever patients. The feeling of dissatisfaction on this subject will scarcely be allayed by the hopeful view of the chairman, founded chiefly on one day's experience, that the decline of the epidemic had set in. Though every application for admission that day—the day of meeting—had been met, the number of cases of fever and diphtheria treated in the hospitals in the last fortnight had been 3562, against 3551 in the previous fortnight. We have no doubt that the complaints from all quarters—from Lewisham, St. Pancras, Bethnal-green, Limehouse, and other boards—are well founded, and we see little reason to hope for any immediate relief or remedy if the present absurd facilities for entering these hospitals by the public are allowed to continue. It is one thing to provide isolation hospitals for the poor or for those who had no adequate accommodation in their homes. It is quite another to invite the public into such hospitals as Parliament has done. We have the greatest misgiving as to the justice or the wisdom of this policy. But it was passed with a light mind by Parliament in 1890, and it is the chief cause of the insuperable difficulties into which the Board has been brought. The representative of the *St. James's Gazette* satisfied himself, on statistical evidence furnished him at Norfolk House, that prior to the new legislation which admitted the public—as distinguished from the poor—to the hospitals of the Board the accommodation was ample, and that this legislation led to a sudden and overwhelming increase in the applications for admission. This is what we have always suspected. The Hon. SYDNEY HOLLAND says, in a letter to the same journal that "if the Board did what it ought to do—provide accommodation for every case of scarlet fever or other infectious disease of like moment in London—it would probably mean the expenditure of a million of money. And what would the ratepayers say to that?" We should say that it would probably mean the expenditure of many millions. That might be a superable objection, for the poor ratepayer is soon silenced. But the wisdom of the policy seems so doubtful that it should not be persisted in till a full investigation of the working of the present system of admission has taken place. Let the public realise that there are hundreds, if not thousands, of cases which can be isolated and treated at home, and which ought to be so treated. The causes of the prevalence of infectious disease need immediate and close investigation.

It is a little disappointing to see a man in Mr. HOLLAND'S position, as chairman of a charitable hospital, say, even with some qualification, "that the Board ought to provide accommodation for every scarlet fever case and other infectious diseases of like moment in London." We should have expected some clearer exposition of the enormous difficulties and cost of such a policy, and some insistence on the duty of all people who can treat their infectious cases at home to do so. We do not blame the hospitals of the Board for the spread of infectious disease. The authorities have shown that the "return" cases which arise from patients prematurely dismissed are not many, and that they keep scarlet fever cases on an average ten weeks and diphtheria cases seven weeks. All the same, it is obvious that there is no obligation on the State to provide isolation for those who can have it in their own homes, and that the loose legislation of 1890 has excluded those for whom isolation hospitals are urgently demanded on every ground of humanity and policy. This matter is urgent, but the most urgent matter of all, and the shortest way to find accommodation for the really proper cases in the hospitals of the Board, is to create safeguards against the use of the hospitals by those who do not need them.

SURGICAL AID SOCIETY.—The annual meeting of the Surgical Aid Society was held at the Cannon-street Hotel on Dec. 9th, the Lord Mayor presiding. The report which was read by the secretary, Mr. R. C. Tresidder, showed that during the year 13,345 patients had been relieved, including 4842 men, 6961 women, and 1542 children. There had been a considerable increase both in the amount of relief afforded and in the number of surgical appliances granted to poor applicants, no fewer than 20,046 such articles having been supplied. The income during the last twelve months had been £10,599 as against £10,256 in the preceding year. The Lord Mayor said that the society had been established thirty-three years, and during that period had supplied 220,600 surgical appliances to needy sufferers.

Annotations.

"Ne quid nimis."

LONDON WATER SUPPLY.

IN conformity with a resolution of the County Council, made on Oct. 22nd, "That the Council having decided not to proceed with the suspended water Bills, and desiring that the Council should be the water authority for London, it be referred to the Parliamentary Committee to report to the Council without delay the lines on which the Government should be asked to legislate," the Parliamentary Committee presented their report at the last meeting of the Council on the 10th inst. It is a very lengthy report, and embodies every phase of the question previously before the water committee. It points out that if the water companies' undertakings were purchased on ordinary arbitration terms London might be made to pay from thirty to forty millions in purchasing the undertakings, and find itself obliged to spend in addition from ten to twenty millions in providing a new supply. In explanation of their action in recommending the Council to invite the Government to deal with the question, the committee point out that the county of London over which the Council desire to be the water authority is only one-seventh of the area the requirements of which the Royal Commission of 1893 said would have to be considered. The Government should, therefore, be asked to constitute by Act of Parliament a public authority for the whole water area, and they suggest taking as a basis the proposal made by a select committee, of which Sir William Harcourt was chairman, that a body be composed of members nominated by the London County Council, the City Corporation, and the home counties, with the addition of nominees of the Local Government Board, and of a sufficient number of coöpted members possessing special knowledge and qualifications. The Act should confer upon the water authority thus constituted full power to purchase the undertaking of all or any of the companies by agreement, and, failing agreement, to determine in what manner and on what conditions purchase shall be effected. The committee observe that no serious attempt has hitherto been made by the Council to negotiate with the companies, and they think that every consideration now points to the desirability of this course being taken without delay. In the event of a purchase not being effected an inquiry into the statutory powers and obligations of the company and the control exercised over them, with a view to make these obligations, &c., more complete, should be instituted; but pending the formation of the water authority the committee suggest that the Council could usefully take steps with a view to facilitating the acquisition of the companies' undertakings. In regard to future supply, the water committee should, they think, bring up its report with the least possible delay. This report only came formally before the Council on Tuesday last, its consideration being adjourned till next week. There will be, therefore, considerable interest attaching to the proceedings of the next meeting.

GEORGE AUGUSTUS SALA.

DURING his forty years of journalistic exertion it would be strange if, among the innumerable topics he took up and laid down the better for his handling, Mr. Sala did not have frequent occasion to touch on the healing art and its practitioners. We know, in fact, that he took special pleasure in watching the fight between medicine and disease, in recording the victories won, or, even when these were indecisive, in noting such advantages as were gained by the hygienic or therapeutic arms. In the columns of the influential and widely diffused journal with which he was connected we can recall many a brilliant article, dwelling on discoveries or incidents attesting the advance of medicine—recall it (let us add) with the more pleasure that it was THE LANCET from which such texts for the day were usually drawn. During the great battle commenced in these columns thirty years ago for Poor-law amelioration, in which the late Drs. Anstie and Netten Radcliffe bore a conspicuous part, we often recognised with gratification the effect our arguments and revelations produced on the lay journalist—on none more than on Mr. Sala, who popularised them and diffused them over an area of the reading public which THE LANCET by itself could not have reached. And as with great questions of social reform so it was with topics of individual or restricted, but striking, medical interest. Some twenty-two years ago, when a "Howard commemoration" was a subject of the day, his leading article on that mighty philanthropist was perhaps the best tribute to him the occasion evoked, recalling in some of its passages the memorable eulogy by Edmund Burke. Again, in his frequent excursions to this or that great European capital—"working-holidays" he used to call them—he rarely omitted to note the standard reached or missed in philanthropic effort or social amelioration. In Rome, for example, he presided at a meeting in aid of the Victoria Home for the rescue and rehabilitation, under British and American auspices, of the little waifs and strays of the Eternal City, and his eloquent, kindly, and touchingly humanitarian appeal was of signal service to the friends of the institution. In the same city or rather its neighbourhood he interested himself in the reclamation of the Campagna by the Trappist brothers at the Trefontane, and his picturesque account of their success won him the gratitude of the devoted men, employed in that all too inadequately supported work. We might multiply instances of his essentially humane and generous nature from our recollection of his coöperation in medical charities, especially in the organisation of the Hospital Sunday movement; but we have said enough, as medical journalists, to warrant our contribution to the mass of testimony borne in his honour by those of other interests—the literary, the dramatic, and the artistic. A conspicuous and popular figure in the public life of the Victorian era, George Augustus Sala will be remembered, long after individual attestation can make itself heard, not only as a humourist and *raconteur* and an accomplished man of letters, but, in the language of Heine, as "a brilliant swordsman in the struggle for the liberation of humanity."

MEDICAL DEFENCE AND QUACKS.

WE are very glad to see that the Medical Defence Union has succeeded in obtaining a conviction against a person named Ferdinand who, besides misrepresenting himself to the general public with regard to his degrees, is also the author of some of the most disgusting and disgraceful advertisements that we have ever seen. The advertisements are written in order to promote the sale of a patent medicine called "ferlandi," which, of course, is a panacea for all diseases under the sun "except rupture and bad cases of cancer, which require special treatment," and this, as we are told later on, consists in the latter case of "ferlandi" combined with cancer pills. Hospitals are designated by the delicate name of "carving saloons," and the public are asked whether these "carving dens are to continue" and whether those who practise in them are to be allowed to associate with respectable people. It is a pity that this contemptible individual does not give us his own definition of respectability, as we imagine it would have to be rather a sweeping and ingenious one if it

is to include him in it. The advertisements, however, have their interest, as, in order to prove that hospitals deserve the name of "carving saloons" and other such genteel epithets, many of the same cases are quoted as those which anti-vivisectionists bring forward in support of their allegations. In both cases the method of quotation is the same; fragments of cases are given which would in most instances appear in quite a different light if their full particulars were set out. We cannot do better than conclude with one of Ferdinand's own prayers: "From all quacks and speculators, good Lord, deliver us, our children, and our pets."

ERRORS IN DIAGNOSIS.

THE difficulty which exists in making an accurate diagnosis of many injuries to the head has again been shown at the Vincennes Barracks in a case of fracture of the skull which was not recognised, and was thought to be only a slight injury until the man became rapidly worse and died. Such mistakes must, unfortunately, from time to time occur, although happily they are rare. The rarity of such accidents of diagnosis in London reflects the greatest credit on the care of the hospital house surgeons. It is practically impossible for the public to realise the many difficulties which often lie in the way in these cases. There is, perhaps, no external injury to act as a guide, and too often the patient is in a condition of complete stupor from drink when brought into the hospital; usually he has been found unconscious, and no reliable history of any injury can be obtained. It is, indeed, scarcely to be wondered at if mistakes should sometimes occur under these conditions, although great care may have been taken to avoid them; and more especially so when it is remembered what a very large number of patients are every day brought to our hospitals unconscious from the effects of alcohol alone, and an examination of each one of these has to be carefully made with a view to finding other possible injuries. In all cases in which there is any room for doubt the only safe course for the house surgeon is to detain the patient until the alcoholic intoxication has to some extent passed off, when other symptoms may be recognised.

ANTI-VIVISECTIONISTS AND HOSPITALS.

THE anti-vivisection party are again endeavouring to win the general public over to their side by means of misrepresentations and omissions in the various accounts which they give of experiments. Canon Wilberforce and Mr. Ernest Bell both wrote to the *Times* on Nov. 30th and tried to show that hospitals are the homes of many horrors. Canon Wilberforce gives a list of many cases which have appeared from time to time, and as usual sadly misrepresents them. One quotation is: "Poor woman admitted to a hospital in a dying condition made the subject of constant observation and examination with tuning-forks, &c. These examinations were continued till her death, which occurred twenty-four hours after admission.—*Brit. Med. Jour.*, Oct. 27th, 1883." Now on looking this case up we find that a woman was admitted complaining of difficulty of speech and paralysis, the symptoms of which had lasted three months. A list of her prominent symptoms is then given, such as loss of power on one side of the face, deviation of the tongue, and so on, and then it is remarked that "a watch was heard one inch and a half from the right ear and eight inches from the left, and a tuning fork was heard best on the left side." Let it be observed how differently this is represented by Canon Wilberforce. The torture with tuning forks fades away into the simple act of putting the fork into vibration and asking the woman when she hears it. The woman died from cerebral tumour, and the case was simply examined in such a way that would lead to some hope of a diagnosis being made. One more example of these disgraceful quotations: "Experiment of injecting milk into the veins of a dying patient." This sounds by itself horrible enough, but a full account of the circumstances puts a very different complexion on the case. The author begins by saying that he believes injection of milk is of great value as a substitute for the transfusion of blood, as he had found that in many cases patients' lives had been prolonged by the operation. He then goes on to say: "I have perused most of the literature on the subject and find that many of the operations have been followed by marked success, in some cases by temporary and in others by permanent benefit, but sometimes no good has occurred from the injection (when improperly performed or when performed in unsuitable cases), and the operation appears to have proved fatal in a few instances." Cases: 1. Profuse uterine hæmorrhage; pulse 150; temperature 101°. All signs of impending death; eight and a half ounces of milk injected into median basilic vein. Pulse and temperature fell next day, and patient made good recovery. 2. Two cholera patients moribund. Injection of milk followed by recovery. Several other cases are given of which some recovered and others did not, but let the truth be noted as compared with Canon Wilberforce's misleading extract. Instead of "experimenting" on the patients, the injection is used as a substitute for transfusion of blood and gives the patient a last chance of living, and from the full reports of these cases there is every reason to believe that several lives were actually saved by the operation. No one can object to the anti-vivisectionists quoting whatever cases they choose in support of their doubtless well meaning but mischievous opinions, but those quotations must be made fairly and with due regard to their context. As representatives of an honourable and humane profession we cannot permit an undeserved slur to be cast upon its members, and the merciful work of hospitals to be impaired by enthusiasts who are unable to support their wholesale allegations.

ANTHRAX GERMS AND OATS.

A CASE has been recently tried before the Lord Chief Justice and a special jury in the Queen's Bench Division, which places the position of disease germs in a new and rather serious light. A firm of corn-merchants sued a lighterman and contractor to recover the price of certain Turkish oats. The defendant denied liability on the ground that the oats contained the germs of anthrax, which had caused the disease to break out in his stables, with the result that he lost fifteen horses, some of which were insured, but he counterclaimed in respect to the others. The plaintiffs, however, denied that the oats contained the germs of anthrax, and in proof of this they brought forward evidence to show that they had bought and sold a large quantity of these oats and had received no complaint except the one in question. The oats were said to have been very dirty and should have been cleaned before being given to horses in order that they should not render the animals liable to contract disease. A veterinary professor, who had witnessed extensive outbreaks of anthrax in England, stated he had known contamination to be produced by germs in a cart, and that germs spread very easily by being blown about as impalpable dust. Ultimately the jury found that the goods were unmerchantable by reason of latent anthrax germs, and that the defendant was not negligent in not having cleaned them, though guilty of negligence in regard to not having taken an order for a second supply of these oats off the file. Judgment was entered for the defendant for £280, the value of eleven horses which died in consequence of the first delivery of oats; the value of four horses that perished after the second delivery of oats was agreed to at £100, which amount was finally divided between the parties. The interesting

feature in this case is that no evidence was forthcoming to demonstrate that the oats incriminated were infested with anthrax germs, and their presence in this food was therefore a mere supposition, due to horses having succumbed to the disease after feeding on them, while the same kind of oats had been supplied to feed other horses, but no such fatal consequence had followed. Surely it was possible to give decisive proof of the actual presence of anthrax bacilli in the dust of the grain, and knowing that anthrax infection may occur through drinking contaminated water or consuming hay or grass containing these organisms, and in other ways, it does seem strange that the supposition was accepted as if it had been based on actual demonstration. The decision, at any rate if it is to form a precedent, will have far-reaching consequences when applied to the provision of suspected food to man and animals.

TYPHOID FEVER AT LUTON.

SOME weeks ago we drew attention to the epidemic of typhoid fever which was existing at Luton, and suggested that a full and independent inquiry into the sanitary condition of the town would be the best means of checking this epidemic and of preventing another in the future. This suggestion was also made by medical men in the neighbourhood, but the authorities have taken no steps towards such inquiry, and the result is that the fever still persists, and seems likely to do so until some more radical measures are taken to find out the source of infection. The cases have mostly occurred in one quarter of the town, and no doubt there will be found various defects to account for it. Among the deaths we regret to have to record that of a nurse named Allan, who died on Nov. 30th, having contracted the disease in the discharge of her duties. According to the Luton papers the inhabitants of the town are now taking the matter up, and will no doubt insist on a proper inspection being made. Typhoid fever is, to a very great extent, a preventable disease, and any failure to take full and adequate measures in dealing with outbreaks entails very grave responsibility on the authorities.

DISCOVERY OF UNKNOWN TRIBES IN AFRICA.

DR. DONALDSON SMITH, who has lately returned to England after exploring in Africa, has discovered no fewer than fifteen tribes. On hearing this news the question may be asked, What good end is reached by these discoveries? Are the people discovered the gainers—or might it not be better for them to be left in their primitive ignorance? With the benefits of civilisation will, doubtless, be also imported many of its vices. Probably the solution of the problem lies in the mean, and the evil and the good are fairly evenly balanced. Amongst the newly discovered people was a tribe of dwarfs, none of them exceeding 5 ft. in height. In the accounts published as yet the exact nature of the country is not stated, nor are the physical characteristics of the dwarfs described; it is therefore idle to speculate as to how near these pigmies are akin to the forest dwarfs found by Stanley, who are mentioned as having large heads and long beards. If, as is not unlikely, it was thick forest where Dr. Donaldson Smith met them there would be a strong presumption that they might be of the same origin, and to carry the speculation further it may be that in many parts of Africa amongst the dense unexplored forests there live tribes of dwarfs of like race, with like customs and habits. In fact, already there have been found by different travellers in Africa more than one tribe of dwarfs, notably the Batwas, 4 ft. 3 in. in height, and the M'Kabbas, near Lake Ngami, reported as averaging but 4 ft. It will be instructive to hear from Dr. Donaldson Smith a fuller description of the appearance of these diminutive men. How far the origin of the race of dwarfs has been affected by climatic influence is more or less an open question. Probably the comparative absence of light and air accounts for the forest men, as also for the Laplanders; but, on the other hand, this argument will not apply to the Andaman islanders or to the bushmen of Australia. When Dr. Donaldson Smith delivers his address before the Royal Geographical Society he will doubtless enter more fully into details, both with regard to the nature of the country and the appearance and habits of the people.

THE MURDER-MONGER.

AT Warwick Assizes, upon Dec. 10th, Sarah Ann Eden, a midwife, was condemned to death for the murder of a woman at Aston, upon whom she procured abortion and who died in consequence. This was no case of an unmarried ignorant girl in her first pregnancy trying to conceal her shame. For such criminals, wrong as they are, we may have pity, but in the present instance the woman was married and had six children. She first tried, with that indifference to this form of crime which so many women exhibit, to get her medical attendant to perform the operation, and when he refused she went to the prisoner. The crime of procuring abortion is far too common, and it cannot be too strongly impressed upon women that she who knowingly gets rid of her unborn child in this way is morally as much a murderess as the operator, and sins of this nature are not confined to the lower orders, but are only too frequent in the upper strata of society.

TRAUMATIC EPILEPSY AND OPERATION.

IN a recent number of the *Philadelphia Medical News* Dr. John D. Davis relates three cases of unusual interest and importance. The first is that of a man aged thirty, a farmer by occupation and without any history in his family of epilepsy, insanity, or other neuroses, who ten years before he came under observation fell a distance of fifteen feet, striking the back of his head on a piece of wood. Within an hour he was attacked by a severe convulsion, which lasted several minutes. After that he had on an average two convulsions a day, he was seldom free from headache, and had almost constant tinnitus aurium on the left side. He had suffered both in spirits and in appearance, and all the usual remedies had been unsuccessfully tried. The seat of the original injury was over the left occipital region, and it was proposed to trephine in this region in the hope that relief might be obtained. Accordingly operation was undertaken, but the membranes appeared healthy and there was no indication of a cyst or other morbid condition of the brain; but on the inner surface of the skull, about three-eighths of an inch from the trephine opening towards the parietal eminence, it was found that the bone was of almost cheesy consistence. All this diseased material was removed and the wound dressed with the most rigorous antiseptic precautions. Convalescence was rapid and the result of the operation most gratifying. There was relief of headache, the tinnitus ceased, and at the time the paper was written, two and a half years after the operation, there had been no return of the convulsions. The second case related is that of a man who at the opening of the World's Fair in October, 1892, received a blow with a chair on the right parietal bone. He was unconscious for several hours and soon began to suffer from severe headaches. He became mentally deranged, suffered from epileptiform convulsions, and lost the use of the left arm and leg. When seen by Dr. Davis about a year after the accident he was suffering from intense paroxysmal headache, frequent convulsions, left hemiplegia, and mental derangement. No good effect being

obtained from drugs, trephining was performed over the right parietal bone. The dura mater bulged distinctly, and when it was incised about a couple of drachms of thin pus escaped. The cavity was washed out, and after the operation the patient's condition was materially better. There was, however, a return of symptoms ten days later, but these were relieved by dressing the wound, allowing some accumulated pus to escape. Since then there had been no return of the pain or other symptoms, and the left-sided weakness was much less and was still diminishing. The third case was that of a girl aged twenty-two who had had a fall on the back of her head while skating about sixteen months before she was seen. She was unconscious for several hours after the accident. Headache then became incessant and was increased by pressure on the back of the head. Her mental condition became very unsatisfactory, her appetite failed, she lost flesh, and suffered from about two convulsions a day. Operation was performed, and although there was every indication of very greatly increased intra-cranial pressure no actual lesion was found. However, three days after the operation the patient ceased to suffer from headache, the mental disturbance disappeared, and she began to gain weight. Eight months after the operation she had remained free from fits. These three cases are certainly remarkable, not only for the success with which they have been treated, but because of the interest which attaches to the different conditions found to be present—in one a softening of the skull at one point, in another an abscess, and in the third increased intra-cranial pressure without obvious cause. Dr. Davis is to be congratulated on the result of his operative treatment.

CAMARAN: THE CAUSE OF CHOLERA TO MECCA PILGRIMS.

COMPLAINTS are gradually accumulating as to the danger of retaining the Island of Camaran as a quarantine station in the Red Sea. It was shown by Dr. Thorne Thorne during the sittings of the International Sanitary Conference of Paris last year that the detention of intending pilgrims from India on that island preliminary to their being allowed to commence the land journey to Mecca had again and again been followed by an occurrence of cholera amongst them, although no suspicion of such disease had prevailed during the long sea voyage from Bombay to the Red Sea; and the verdict of a French physician was quoted to the delegates to the effect that Camaran was an *entrepôt cholérique*. Recent experience goes to emphasise and confirm this view, and reports have shown how utterly unwholesome, and even filthy, are the conditions to which the pilgrims are exposed during their enforced detention on the island. It is quite true that both at Paris and elsewhere promises have been made on behalf of the Sultan as to prodigious sums which His Majesty was just going to have spent on removing all sources of complaint; but promises of this sort now only cause an incredulous smile, and in the meantime it is known that during the last pilgrimage Camaran remained the *entrepôt cholérique* it has always been; soil, air, and water being liable to excremental pollutions of the worst sort. The past history of cholera, in connexion with the Mecca pilgrimage comes aptly to illustrate the mischievous results which this disease-producing quarantine station has led to. Between 1817 and 1866 there was an absence of quarantine detentions on pilgrims landing on the Arabian shore, and during that period cholera only broke out during the Mecca pilgrimage on two occasions—namely, 1835 and 1865. Between 1866 and 1881 a period of observation lasting twenty-four hours was imposed on arrival in the port of Jeddah, and again cholera only appeared during the Mecca pilgrimage on two occasions—namely, in 1872 and 1877. But since 1881, when the quarantine station and lazaret of Camaran were opened, and since which date Indian pilgrims have been compulsorily detained there for a period of five to ten days, cholera has actually broken out during the Mecca pilgrimage on eight separate occasions—namely, in 1881, 1882, 1883, 1890, 1891, 1892, 1893, and 1895. Well may our Mahommedan fellow subjects in India begin to demand the abolition of the compulsory detention of hitherto healthy pilgrims at this *entrepôt cholérique*. That demand is now being raised by those who are primarily concerned; but, under present circumstances, we fear that some money consideration which shall in some form or other make up for the so-called sanitary dues now imposed on the pilgrims will have to be offered before any such result is likely to be attained. In the meantime the Turkish possession of Camaran remains the greatest hindrance to the abolition of cholera in connexion with the Mecca pilgrimage.

INFANTILE MORTALITY AT CARDIFF.

AT the last meeting of the Cardiff Sanitary Committee the medical officer of health (Dr. Walford) was present, and by request read his report upon the alleged excessive infantile mortality at Cardiff. He stated that out of a total number of 608 deaths during the three months of the third quarter of this year 308 were of children under one year of age. Eighty of these were from diarrhœa. The deaths took place principally amongst children who were artificially fed. A discussion on the same subject took place at the meeting of the Cardiff Burial Board, when a medical man who is a member of this board and also of the Sanitary Committee stated that this excessive mortality was due to three causes: first, the deplorable lack of knowledge that prevails in all classes concerning the feeding of infants; secondly, the insanitary conditions in overcrowded districts; and, lastly, infant insurance, with regard to which he was of opinion that the Legislature ought to act.

THE HABITS OF BATS.

A VERY interesting paper on the habits of these curious animals in captivity appears in the current number of *Nature Notes* from the pen of the artist Mr. J. D. Batten, who has for years kept a number of them as pets. They appear to be easily fed on meal-worms, and to be extremely docile and easily managed, although none of them live for more than a few months in captivity. The account both of the waking from natural sleep and of hibernation is of great interest. Speaking of sleep Mr. Batten says: "The bat when thoroughly asleep is dead cold to the touch. If I then took it in my hand ..... it would lie quite still. On putting it to my ear I could hear a throbbing begin, at first very slowly and not very regularly, more than a second between the beats. Gradually the throbbing became quicker and quicker until it was impossible to count the beats; at the same time the warmth of the body was increasing rapidly and the bat quivering visibly. At last the throbbing becomes a continuous whir ..... and the body feels hot to the hand. Then rather suddenly the throbbing quiets down ....., slows somewhat, and becomes almost inaudible. The bat coughs or sneezes, chatters a little with its teeth, and moves about expecting to be fed." The noises heard must be to a large extent from the voluntary muscles. Some interesting observations are given as to the hibernation of bats and their behaviour when roused during that process. In the case of two bats that died during hibernation the spleen was found by Dr. F. E. Batten to be very large, while in one that died just before that stage and in two which died at other times of the year it was quite small. Much information is wanted as to the size of the various organs and the chemical constitution of

the tissues in hibernating animals. It is alleged that large quantities of glycogen are stored up even in the connective tissues—in such quantity that the masses of glycogen can be seen in the cells under a moderate magnifying power after staining with a weak solution of iodine. Practitioners living in parts of the country where hibernating animals, such as dormice and hedgehogs, are abundant have the opportunity of making original observations which would be of the greatest value in throwing light on very obscure physiological processes.

MEDICAL WITNESSES' FEES.

AT the Westminster Police-court on Dec. 10th Mr. J. E. Coulson, assistant medical officer of St. George's Workhouse Infirmary, gave evidence in a pauper case and applied to the magistrate for a certificate for his fee. Mr. Sheil refused, saying the petitioner had been sent by the workhouse and must ask the workhouse people for his fee. We do not believe that the "workhouse people" have any legal right to "send" their medical officers as witnesses, and next time such a case arises we should advise Mr. Coulson to refuse to attend without a subpœna and his fee.

RUBBISH.

WE had occasion, in our issue of Nov. 23rd, under the heading "The Friend of Humanity—New Version," to comment upon a letter sent out to publishers signed by Mr. Edward Curtice as managing director of the Newspaper Exchange and Advertisement Clearing House. The letter consisted, it may be remembered, of a proposal to supply the press with a popular medical article every week from the pen of "'Dr.' Allinson, the well-known Hygienic Physician," if certain advertisements of Mr. Allinson's books could be inserted in the columns of the various papers applied to. We have since received from a fellow-editor the following document, which would appear to be a circular letter to the provincial press from a "London correspondent." We have omitted certain reviews and notes on the trial of Jabez Balfour and the *Spectator* dog stories, but otherwise we print the communication exactly as it purports to have left the offices of Messrs. Romeike and Curtice:—

THE JOURNAL OF UNIVERSAL INFORMATION AND ORGAN OF THE LONDON NEWSPAPER EXCHANGE AND CLEARING HOUSE COMPANY.

No. 75. *Saturday, December 7th, 1895.*

I am sorry that my health prevented me publishing the Journal last week, and also that the weather stopped me calling on several big advertising agents to ask payment of long outstanding a/cs due to distant subscribers. I sent a clerk to a well-known advertising agent and he was most indignant and refused to speak to anyone except the principal, who lives 400 miles away, but why should any honest man delay payment, surely he could send a cheque direct. I will call on him myself on Monday.

* * * * * * * * *

I am sorry that some of my friends have taken offence because I sent out Dr. Allinson's advertisement. It should be understood that it is purely a matter of business, and I am paid to send it out. The anonymous scribbler who wishes me every evil wish and will give me a kicking when he meets me, is only wasting his time and stamps.

A few weeks ago I wrote that I had become a patient of Dr. Allinson's, and I am pleased to say that by diet only, and without physic, I am much better for his advice.

I was entrusted with the advertising for the Patti concert, and I think the order was carried out to the satisfaction of those who employed me as they sent a cheque and two stall tickets for the Albert Hall. My wife and I went, and regretted that the many millions in London cannot hear this wonderfully gifted lady. Her encore "Comin' thro' the Rye" was sung with all the witchery and coquetishness of a girl of 16, yet it must be 30 years ago since I heard her for the first time at Covent Garden at a benefit concert of Mr. Harris, the father of Augustus Drurylanius.

* * * * * * * * *

I have accidentally met with a booklet recently published by Messrs. Churchill, from which I think cancer-sufferers should derive much information of a decidedly encouraging nature. It is called "The Conditions of Radical Cure in Cancer." The author, Dr. Herbert Snow, a well-known Specialist on tumours and cancer, discusses the treatment of the latter which he regards as eminently curable by certain novel scientific methods and principles if taken in time. He considers opium, of old termed the "Divi donum," or special gift of God, as by far the best remedy for this fearful scourge we at present possess; and while confessing that it is not an absolute cure goes on to affirm: "Opium is the only drug which markedly checks the growth of carcinomata, and its early employment even when no surgical operation takes place will commonly add years of comfortable life."

Printed and Published by Romeike and Curtice, 359, Strand, London, W.C.

We do not think that the firm of Messrs. Romeike and Curtice will add much to any prestige they may rightly enjoy among those concerned in journalistic work and newspaper production by assisting in the dissemination of rubbish of this class, and we are certain that Dr. Herbert Snow will be grieved to find his name offered prominence in such a place.

THE PHYSIOLOGICAL ACTIVE PRINCIPLE OF THE THYROID GLAND.

DR. SIGMUND FRÄNKEL has made some valuable experiments in the Institute of Medical Chemistry of Vienna on the active principle of the thyroid gland. The results of feeding with animal extracts of the thyroid gland, adrenals, &c., in certain diseases have been most successful clinically, although the exact composition of the remedies has not been thoroughly understood. Several previous attempts have been made to discover the active principle of the thyroid gland, but hitherto without success. Dr. Fränkel experimented with known quantities of cold and warm extracts of the thyroid glands of sheep. The albuminous bodies were precipitated by acetic acid, and by feeding experiments he ascertained that the precipitate had no marked effect, whilst the filtrate that was obtained possessed the well-known properties of the thyroid gland, or, in other words, contained the physiological active principle. The filtrate was then chemically examined. It was first evaporated to a syrup, and on cooling solidified, showing the presence of gelatine derived from the connective tissue of the thyroid gland. By other experiments this gelatine was shown to be inactive. Fresh material was then taken and the albuminous substances and the gelatine precipitated by neutral acetate of lead, and the metal separated by filtration after precipitation by sulphuretted hydrogen. The residue obtained from the filtrate after evaporation was dissolved in alcohol and ether added, when a body was obtained which had the following peculiarities: it was intensely hygroscopic, and was soluble in water and alcohol. The watery solution had a neutral or slightly alkaline reaction, and only applying the usual tests for an alkaloid a positive result was obtained. Dr. Fränkel calculated the empirical formula as $C_6H_{11}N_3O_5$. He has provisionally named the substance "thyreo-antitoxin," as stated last week by our Vienna Correspondent. Investigations are being made clinically with this body, but sufficient time has not elapsed to establish any definite results. In experimenting on animals Dr. Fränkel failed to find the fall of blood-pressure demonstrated by Schäffer upon intravenous injection of thyroid extract, but acceleration of the pulse-rate was well marked. He also found that the hearts of frogs poisoned by muscarin, which had ceased to beat, could again be brought to act by dropping on them a few drops of a watery solution of the thyreo-antitoxin. In animals, too, after the thyroid glands had been extirpated and convulsions and other symptoms had followed, temporary recovery followed subcutaneous injections of a 1 per cent. watery solution of the remedy. These experiments agree with those made by Gley of Paris with injections of thyroid juice. Dr. Fränkel maintains, therefore, that he has demonstrated the isolation of the active principles of the thyroid gland, and that it is a pure chemical body, with well-defined chemical properties and occurring in considerable quantity in the gland. He anticipates that we shall eventually be able to administer this particular antitoxin in exact doses. As he has isolated it the body is odourless, and with a taste which "reminds one of the extract of beef rather than of the thyroid or its extracts." Another advantage he claims for the antitoxin is that we shall be able to assure ourselves of its purity, and

that it is free from ptomaines, for a case of poisoning has recently been reported through feeding with a thyroid preparation. It must be remembered also that many of these preparations offered for sale are rendered inactive through faulty methods of preparation.

THE LATE SURGEON-MAJOR PARKE.

A MEMORIAL brass has been set up in the parish church of Kilmore, Ireland, in memory of Surgeon-Major Parke, whose premature death evolved such widely expressed sympathy at the time, both in medical and lay circles. The following is a copy of the inscription: "In Memory of Thomas Heazle Parke, Surgeon-Major A.M.S.C., second son of Wm. Parke, Esq., J.P., of Cloghes House, Kilmore. Born Nov. 27th, 1857; died Sept. 11th, 1893. Beloved and honoured by all who knew him. He entered the Army Medical Staff in 1881; served in Egypt with distinction, accompanying the Bazuda Desert column of the Nile Expedition for the relief of General Gordon, 1884-85. From January, 1887, to December, 1889, he served on the expedition for the relief of Emin Pasha as surgeon. It is as a tribute to his constant gentleness and care for the sick and suffering, and to the splendid services he rendered alike to Europeans and Africans during the three years' march across Africa, that this tablet is erected in grateful and affectionate remembrance by the two surviving officers of the expedition, Henry Morton Stanley, A. J. Mounteney Jephson (lieutenant)." The brass is mounted on a slab of polished marble.

THE FRENCH ARMY MEDICAL SERVICE.

WE recently[1] alluded to the retrogressive spirit displayed by the military authorities in their treatment of the medical staff of the French army, and we regret to observe that the topic is still the subject of unfavourable comment in several of our Parisian contemporaries. The feeling of discontent amongst members of the medical corps is described as becoming daily more and more accentuated, and unquestionably, if the facts now adduced are exact, these neglected, not to say despitefully treated, officers have every reason to be dissatisfied. A writer in *La Revue Médicale*, signing himself Georges Collet, is responsible for the following serious allegations. When, in answer to a telegram from the War Office, General Duchesne despatched from Madagascar his list of nominees for admission to the Legion of Honour he *forgot* the officers of the *Corps de Santé*. The omission having been observed, the General-in-Chief's attention was invited thereto by cable, whereupon he at once sent home a second despatch giving the names of all the medical officers taking part in the expedition! It would, of course, be possible to interpret this extraordinary procedure in a complimentary sense; the General might be supposed to mean that where all had acquitted themselves so meritoriously it was impossible for him to make selections; but, unfortunately, no such flattering explanation can be accepted by people acquainted with the real state of affairs. It was notorious that when the Madagascar expedition was being organised very little attention was paid to the demands of the Medical Director; and throughout the operations administrative medical officers were compelled to engage with the superior staff of the force in never-ending contests whereof the echoes have traversed the seas. The truth is the *Corps de Santé* is on the eve of losing the position it has so laboriously acquired. The decree which overrode the law by removing all transport material from the control of the chief medical officer must be fresh in everyone's recollection. M. Collet's next charge is made on the authority of Dr. Noël, and refers to the remarkable manner in which the military medical element has disappeared during the last few decades from the officers' roll of the Legion of Honour. In order that the discrepancy may be seen at a glance we have constructed the following table from the materials supplied in our contemporary:—

Legion of Honour.	1868.			1895.		
	Total number.	Officers of the Legion.	Knights of the Legion.	Total number.	Officers of the Legion.	Knights of the Legion.
Médecins Principaux, 1st Class	40	36	4	40	30	10
,, ,, 2nd Class	40	26	14	45	11	34
Médecins Majors, 1st Class ...	260	59	200	313	10	253
,, ,, 2nd Class ...	268	—	98	330*	—	77

* Approximate number.

The position of *médecins majors* of the second class is declared by M. Collet to be deplorable. Before an officer of this grade can hope for promotion he must have from twenty to twenty-five years' service and be about forty-three years old. No medical officer can expect advancement in the Legion of Honour until he has served for at least thirty years, and even then he cannot count on it be his career ever so blameless. There are now several retired officers with more than this amount of service, inclusive of from ten to fourteen campaigns, who are not in possession of the coveted rosette. The department had great hopes when General Zurlinden was at the head of affairs that something would be done to improve its position; but he is no longer a Minister, and serious doubts are entertained regarding the friendliness of his successor, M. Godefroy Cavaignac. As we mentioned last week, M. Vigne stated in the French Chamber that the hygienic and medical arrangements in Madagascar were defective, but if the medical officers were treated as M. Collet says, it is not right that they should be made to bear any blame in connexion with the terrible mortality by which the expeditionary ranks were doubly decimated. A mortality of 20 per cent. in a few months should be a warning to all Governments and generals not to neglect medical advice when military operations have to be conducted in a bad climate, or, for the matter of that, in a good climate.

CASTS IN NON-ALBUMINOUS URINE.

A PAPER on this subject appears in the *Berliner Klinische Wochenschrift*, No. 14, 1895, by Dr. A. Kossler. The writer has made a study of the occurrence of casts in urine which does not contain serum-albumin, with special notice of their relation to nucleo-albumin. He accordingly investigated mainly cases of infectious fevers, tuberculosis, and various forms of poisoning, nucleo-albumin being more commonly found in connexion with such conditions than with nephritis. He examined the urine of twenty-nine patients which was free from albumin, and found casts of various forms in the majority of the specimens. Chronic pulmonary tuberculosis yielded the greatest number of positive results; in eighteen cases casts were found—hyaline and granular; and in a few of the cases epithelial casts also. Solitary specimens of blood casts of both varieties, red and white, and of amyloid casts were likewise reported. Two cases of rheumatic endocarditis gave similar results, and one case each of the following diseases—viz., scarlet fever, enteric fever, croupous pneumonia, empyema following pneumonia, and a prolonged case of severe bronchitis, in which the temperature remained high; there were also two cases of phosphorus poisoning and two of a febrile disorder of an uncertain

[1] THE LANCET, Sept. 28th, 1895.

nature. As before stated, all the specimens of urine examined did not contain serum-albumin, but the majority of them yielded nucleo-albumin in varying quantity, and the writer contrasts the occurrence of casts in connexion with nucleo-albumin with that of their occurrence with serum-albumin. Various circumstances go to show that the source of nucleo-albumin with casts is renal. Dr. Kossler had opportunities of examining twelve of the eighteen cases of pulmonary tuberculosis post mortem. In none of the cases were there any well-marked inflammatory changes, either diffuse or circumscribed, and he did not find in any of them cell-infiltration and exudation into the glomeruli. On the other hand, he was able to demonstrate changes in the epithelium of the urinary tubules: coarse granulation, well-marked cloudy swelling, and loss of nuclei, all stages of necrobiosis of the cells to the full destruction of the same. But these degenerative changes were not distributed through the whole of the kidney, but were distributed in small patches throughout the tubular structure. The occurrence, therefore, of casts with nucleo-albumin seems to stand quite apart from the ordinary exudative processes in the kidneys; the histological characteristics were entirely those of degenerative lesions of the glandular tissue.

AN ACTION FOR RECOVERY OF FEES BY A DENTIST.

AN important case was recently heard before Mr. Justice Mathew which opens up the question of fees. The action was brought by a dentist to recover fees to the amount of £105 for two small removable pieces of bridge-work, each carrying four teeth. The plaintiff, in support of his case, stated that the defendant had agreed to pay the sum sued for, but this fact hardly seemed to be supported by the subsequent evidence. Amongst other things we notice that the plaintiff stated he practised as a specialist in advanced American dentistry, and that removable bridge-work was never done by any dentist but himself. For the defence Mr. Charles Tomes gave evidence and expressed the opinion that the work was of a very ordinary character; was done by hundreds of dentists both here and in America; and that a fair fee would be about 30 guineas. The result of the case was that the plaintiff was allowed the sum of £30. In reviewing, this action we cannot help thinking that bridge-work is only too frequently used as a means of claiming large sums of money, and the patients, too nervous to face publicity, pay the sums demanded. The more quickly people begin to learn that there is no such thing as dentistry special to a country the less we shall hear of these cases. A few more decisions similar to the above would, we think, have a beneficial effect.

SYRINGOMYELIA IN A CHILD.

IN the *Revue Médicale de la Suisse Romande* Dr. Thomas relates the particulars of a case of this curious affection occurring in a child aged six. The patient went to a dispensary on account of severe and troublesome diarrhœa, but the hands were noticed to be peculiar in appearance. He was an only child, born at full term, but the labour was long and difficult. He had had digestive troubles and a severe burn in 1893. Two years before he was seen—i.e., at the age of four—the mother noticed that he did not seem to have pain when he was burnt. On examination the child was found to be of medium height and thin. There was a moderate degree of lateral curvature with the convexity directed to the left. The hands were large, stumpy, and cyanosed, and in the left hand the terminal phalanx of the index-finger had almost disappeared, while those in the other fingers and also in the thumb had been altered. Similar changes were present in the right hand. There was at least no marked degree of muscular atrophy in the hands and none in the legs, but while tactile sensibility seemed to be normal there was diminution of that for pain and for the appreciation of heat and cold. The knee-jerks were not obtained; there was no incontinence of urine, but loss of control over the sphincter ani. This case is peculiar and interesting because of the youth of the patient and the completeness of the clinical features of the case. An unusual feature certainly is the loss of control over the sphincter ani. But if, as seems likely to be the case in some instances, the condition which we designate "syringomyelia" depends upon a developmental defect in the spinal cord, such a defect of control might be due to a cause similar to, if not identical with, that which produces a similar weakness in certain cases of spina bifida occulta.

THE FORMS OF MUSCULAR ATROPHY.

IN his essay on the Duchenne-Aran type of progressive muscular atrophy (noticed on another page) Dr. J. B. Charcot does good service in presenting in tabular form the numerous conditions under which muscular atrophy arises, although, as he says, any classification in the present state of knowledge must be regarded as provisional. It may be useful to reproduce here the categories which he has formulated under the three heads of "myelopathy," "neuritis," and "myopathy."

MYELOPATHIC GROUP. — A. *Acute Amyotrophies.* 1. Infantile paralysis and adult spinal paralysis. 2. Acute central myelitis. 3. Hæmatomyelia. 4. General subacute anterior spinal paralysis. B. *Chronic Amyotrophies.* I. Protopathic Forms: 1. Progressive muscular atrophy, Duchenne-Aran type. 2. Labio-glossal laryngeal paralysis. II. Deuteropathic Forms: 1. Amyotrophic lateral sclerosis or muscular atrophy, Charcot type. 2. Hypertrophic cervical pachymeningitis. 3. Syringomyelia. 4. Tabes. 5. Various types of central myelitis. 6. Intraspinal tumour. 7. Disseminated sclerosis. III. Special form of family progressive muscular atrophy commencing in the feet and legs and involving the hands subsequently.

NEURITIC GROUP.—1. *Infectious Form: a.* Diphtheria, typhoid fever, &c. *b.* Primary infective neuritis, beri-beri. *c.* Multiple neuritis consecutive to syphilis and tuberculosis. 2. *Toxic Form.* 3. *Spontaneous Form*, neuritis *a frigore*, &c. 4. *Atrophic Form*, dyscrasic or cachectic, as from pernicious anæmia, chlorosis, cancer, diabetes. 5. *Sensory neuralgia.*

MYOPATHIC GROUP.—1. Pseudo-hypertrophic paralysis. 2. Juvenile form of Erb. 3. Progressive muscular atrophy of infancy of Duchenne; facio-scapulo-humeral type of Landouzy-Dejerine. 4. Hereditary form of muscular atrophy of Leyden and Möbius. 5. Scapulo-humeral type of Zimmerlin. 6. Femoro-tibial type of Eichorst.

TREATMENT OF SMALL-POX BY EXCLUSION OF THE CHEMICAL RAYS OF DAYLIGHT.

IN September of last year Dr. J. Moir drew attention in our columns to this treatment of small-pox, and we have since received communications on the subject from Dr. Moir, Dr. Finsen, and Dr. Feilberg. Dr. Finsen has recently published an interesting historical account of the Red Light Treatment of Small-pox, the scientific basis on which it is founded, and the method of carrying it out. Dr. Feilberg states that he was at first very sceptical as to the influence of red light on small-pox patients, but, nevertheless, tried its effect on several unvaccinated children suffering from small-pox, and was surprised at the favourable course which the disease took. The vesicles did not suppurate, there was no secondary fever, and no permanent pitting resulted. The essential point for the success of this treatment, according to Dr. Feilberg, is that the patients should come under treatment during the early stages of the disease, shortly after the vesicles have appeared; if the seventh day has been reached suppuration can hardly be avoided. Another important point is that the exclusion of the chemical rays of daylight must be complete and continued until the vesicles have quite dried up. Dr. Moir, whilst admitting that Dr. Finsen bases his treatment on a scientific basis, and notwithstanding the extreme ability displayed both by him and Dr. Feilberg and the care and fairness shown by them in their papers, is still doubtful as to whether their explanations are correct. He admits that he criticises without experiment, but though he has not used

identical treatment yet he has given trial to somewhat similar experiments. For instance, he used to employ a solution of collodion and castor oil on the exposed parts to prevent suppuration and pitting, also, for similar reasons, iodine and glycerine solution, the latter particularly apparently meeting Dr. Finsen's chief requirements; but as the result of these and similar trials he still believes that the only distinction to be depended on as to the extent of suppuration and pitting is the presence and quality of the successful vaccination.

"HONOUR TO WHOM HONOUR IS DUE."

UNDER the rubric of "Palmam qui meruit ferat" a controversy has lately closed in the *Times* as to the real authorship of the saying, "He who never makes mistakes never makes anything." The ex-American Minister, Mr. Phelps, did indeed enunciate the aphorism, in a connexion, moreover, which drove its truth effectively home; and other publicists on the platform and in the press quoted it from him as a novel contribution to proverbial philosophy till prior claims were put in for its authorship, and it was assigned (*inter alios*) to the poet Goethe, the Emperor Napoleon, the dramatist Beaumarchais, and Mr. Samuel Smiles. The gist of the aphorism residing in the fact that "humanum est errare" and that the man who most is to be commended is he who errs least often, Napoleon was thought to have anticipated Mr. Phelps when he remarked, "the best general is he who makes fewest mistakes." But by none of the participants in the controversy was it shown that the aphorism is to be attributed to the Father of the Healing Art. In the Hippocratic treatise περὶ ἀρχαιῆς ἰητρικῆς (on ancient medicine) the author reserves emphatic approval for the physician who errs indeed, but who errs only in unimportant matters (τὸν σμικρὰ ἁμαρτάνοντα), and then follows the famous comparison of the practitioner to the pilot—a comparison, as was long ago pointed out by THE LANCET, appropriately addressed to an audience familiar with the difficult navigation of the Greek archipelago. Like all teachers of consummate ability Hippocrates possessed, and improved by practice, the art of condensing the results of observation or reflection in memorable phrases, and the aphorism in question is but one out of many in which he can be shown to have anticipated the wisest of the moderns.

HOSPITAL ABUSE AT BRIGHTON.

DR. WARING, whose communications to us on the above subject have made a wide impression, has returned again to the charge in a paper read before a special general meeting of the Brighton and Sussex Medico-Chirurgical Society on Nov. 26th. He adduced illustrations, for the accuracy of which he vouches, which are very striking. He learns from the reports of the various charities in Brighton that 38,113 tickets were distributed in 1894. If these did not represent 38,113 separate persons or cases, as is alleged, then the claim on the charitable is made on an exaggerated statement. He adduces striking individual instances of abuse in the cases of persons with good incomes, and of whom better things might be expected. He protests very properly against nearly a third of the women of Brighton being attended in their confinement by the midwives of the Lying-in Institution. One of the midwives of the institution has told him that over half the cases could afford to pay. We agree with him that as a rule all first cases should be denied charitable help. As an instance of abuse of a charity he mentions that of a gentleman, living in a large house and subscribing 10*s.* to a dispensary, sending a relative, who lives with him, to the dispensary for advice, and for one or two elastic stockings. It is difficult to tell where the charity comes in here, and the only conclusion we can come to is that the gentleman's conscience must be more elastic than the stockings which he gets for his friend at less than cost price. With equal force Dr. Waring protests against working men in the receipt of large wages dropping a penny weekly into the workman's boxes at railways and other works, and purchasing tickets for the sum so raised for the use in cases of common illness of all their relatives. This is not to help a charity, but to pauperise themselves and to cheat the medical profession. We can only notice another bad case. A patient suffered from cataract. Dr. Waring asked whether he could afford £5. He said he could well, and promised to let him hear soon, Dr. Waring meaning to get a surgeon in Brighton to perform the operation. Some time elapsed and he met the patient with apparently good sight. He had had the operation done "for nothing" at the eye hospital and by the very surgeon whom Dr. Waring intended to ask to operate for the fee which the patient could well afford. There is no morality or gratitude in such action of patients. And there is not much more on the part of the hospital that helps them. If such abuses in the name of charity are not corrected the institutions will die out. Their medical officers should save them by declining to be parties to so great an abuse.

HEALTH IN THE POST-OFFICE SERVICE.

THE Departmental Committee on Post Office matters held a meeting at the House of Lords on Friday last, Dec. 6th, Lord Tweedmouth presiding, when the important evidence of Mr. Arthur H. Wilson, chief medical officer to the General Post Office, as to the health of the employés was heard. From figures which Mr. Wilson gave in illustration we learn that the average number of days' absence from work in the year among the employés in the central office is 8·6, while the average staff numbers 6000 men. As the average number of days' absence from sickness in the country generally is a fraction over 9·0, it will be seen that this figure must be considered a satisfactory one, both from the point of view of the men and of their employer—the country. The average figure representing days of absence from sickness among the sorters was rather high; while in the senior telegraphist class it reached 12·3, a figure accounted for by the chronic illness of a few and not by any generally prevailing bad conditions. With regard to the death-rate in the Post Office the average age of the men in the service is about thirty-five years, and the death-rate is smaller than the general death-rate of the country, it being for the years 1891–94: postmen, 6·3; telegraphists, 4·2; and sorters, 4·1. The employés of the Post Office are known to consider that their average rate of sickness is high and compares unfavourably with the sick-rate of the working portion of the community between the ages of fifteen and sixty-five years. It would appear from Mr. Wilson's evidence that, at any rate during the four years with which he has dealt statistically in his evidence, the Post Office employés as a whole enjoy better health than men of about the same age engaged in many other occupations and professions.

THE WESTMINSTER PLAY.

IF the classics are worth teaching at all they are worth being taught well, and, to this end, the representation of Greek and Roman scenic masterpieces has, from the revival of letters downwards, been practised with satisfactory results, both at home and abroad, in the best organised schools. Westminster has long been distinguished among ourselves for the prominence she has given to such performances, and this year will continue the time-honoured tradition by the representation of the "Andria" of Terence. Exception, not altogether groundless, has, however, been

taken to the scantiness of the repertoire from which the plays are drawn. Three of Terence and one of Plautus recur with a frequency almost monotonous, until the scholarly outsider inquires if the school authorities are quite justified in so restricting their choice. Other plays besides the "Andria" or the "Phormio" or the "Adelphi" or the "Trinummus" are now read in good editions at not a few grammar schools, and would, if represented, be quite as effective on the stage as the best of the old favourites. Take, for instance, the "Menœchmi" of Plautus. This is an acknowledged masterpiece, and, besides, gives the reader or spectator a glimpse into the *vie intime* of antiquity not afforded by others of the same class. For one thing, it introduces the medical man as he posed and practised in the period of the Republic, before, that is to say, he was recognised by Julius Cæsar's famous edict as belonging to a liberal profession. Even then the practitioner had a house of his own specially adapted for the admission and treatment of cases, and in the "Menœchmi" he says—

"ego abibo domum
Ut parentur, quibus paratis opus est."

There the patient was under his direction and responsibility, and there also there was in attendance the *personnel* consisting of carriers and assistants at the disposal of practitioner and patient alike. The whole scene, with which the fifth act opens, is most interesting and instructive as an object-lesson in the private practice of Republican Rome, and suggests the further consideration of how far scenic representation might not be made subservient to reproducing for the modern world the characteristic life of the ancient.

"AN EPIDEMIC RELIEF SERVICE."

UNDER the above title we have received from a correspondent, engaged in nursing, a communication embodying some suggestions, in favour of which there is much to be said. She has evidently been impressed in practice with the enormous difficulty which is experienced in many country districts, owing to the lack of proper isolation accommodation, in dealing adequately with epidemics of infectious disease and by the no means infrequent supineness of rural sanitary authorities in the face of serious outbreaks, difficulties which, as she rightly observes, are enhanced in a high degree by the fatalism and ignorance of the poor. She refers to the utterly inadequate manner in which the directions of the medical attendant in matters relating to isolation and disinfection are carried out by the untrained persons into whose care the infectious sick in rural districts so frequently fall, and she is anxious, if possible, to see a better state of affairs brought about. With this praiseworthy end in view she suggests the formation of an "epidemic relief service" for use in outbreaks of infectious disease. Her proposal is that a roll of nurses skilled in the nursing of cases of infectious disease, and willing to be despatched to wherever their services are required, should be kept; a suggestion, in fact, much after the lines of that acted upon during the last cholera scare by the Royal British Nurses Association, and to which we drew attention in THE LANCET of Aug. 27th, 1892. There is little doubt, if the suggestions embodied in our correspondent's communication could be carried out in their entirety, that many lives and much suffering and inconvenience might be spared. It would be in times and places where epidemic regulations under Section 134 of the Public Health Act, 1875, were in force that the suggestions referred to would be of the greatest value; but this raises the question as to what is to become of the nurses enrolled during non-epidemic times. Obviously, if they were otherwise engaged they would not be available at a moment's notice without considerable inconvenience to their patients. The Isolation Hospitals Act, 1893, confers power upon a hospital committee to provide for the training of nurses in the nursing of cases of infectious disease, and this provision is that which approaches most nearly to the proposals made by our correspondent. The expense connected with the carrying out of her suggestions seems to be the chief objection to them; as to their value there can be no question.

OUR Russian Correspondent, as will be seen in another column, announces that the date fixed for the Twelfth International Medical Congress to be held at Moscow is the week beginning Aug. 19th and ending Aug 26th (these are the English dates), 1897. The president (acting) will most likely be Professor Klein, Dean of the Faculty of Medicine in the University of Moscow, and Professor Erisman, who holds the chair of Hygiene, has been elected general secretary. The official languages will be French and German.

THE trustees of the National Portrait Gallery have received from Mr. G. F. Watts, R.A., fifteen oil portraits and two drawings. The portraits are part of the series painted by Mr. Watts with a view of their eventually becoming the property of the nation, and among them medical men will be glad to hear is the face of Sir Andrew Clark in the good company of Matthew Arnold, Robert Browning, Thomas Carlyle, Cardinal Manning, John Stuart Mill, Dante G. Rossetti, the Earl of Shaftesbury, Lord Tennyson, and others.

PROFESSOR HAFFKINE, fresh from his practical work in connexion with the subject, will deliver a lecture on Preventive Inoculation against Cholera in India, on Wednesday, Dec. 18th, at 5 P.M., at the Examination Hall, Victoria Embankment. Members of the profession will, we understand, be welcome to attend.

DR. ARTHUR NEWSHOLME will read a paper on "A National System of Notification and Registration of Sickness" at a meeting of the Royal Statistical Society, to be held on Tuesday, Dec. 17th, at 5 P.M., at the Royal United Service Institution, Whitehall, S.W.

Pharmacology and Therapeutics.

PARACHLOROPHENOL IN LARYNGEAL PHTHISIS.

DR. SPENGLER in his dissertation (St. Petersburg, 1895) shows that parachlorophenol has considerable effect on tubercle bacilli in laryngeal phthisis when locally applied. After having observed its action by experiments on animals, twenty-six patients who were suffering from tuberculosis of the larynx and of other organs were treated, ten of whom appeared to be completely cured. The parachlorophenol was mixed with glycerin in various proportions, and when applied to the ulcerations on the mucous membrane of the larynx was found not only to cause no irritation but to have a soothing effect as well as a cicatrising action, the soothing effect being much more prolonged than that obtained by the use of cocaine. It was found applicable in all classes of cases and so is preferable to lactic acid and even to surgical manipulation. In cases of lupus of the mucous membrane, too, it acted very beneficially. Parachlorophenol was found, by experiment, to have a very energetic microbicidal action on tubercle bacilli, whether in pure cultures or as existing in the sputa of phthisical patients.

CHLORIDE OF AMMONIUM IN PHTHISIS.

Mr. A. Kebbell, M.R.C.S. (Flaxton, York), advocates the use of chloride of ammonium in even advanced cases of pulmonary phthisis. He generally gives it internally in doses of 7½ gr. taken in milk every three or four hours, and finds that it is followed by great increase of expectoration, improvement in sleep and appetite, and diminution of night sweats. He attributes its efficacy—which in his experience "surpasses any drug that I have used or seen used in the treatment of phthisis"—mainly to the

facility of expectoration and also, perhaps, to its action on the ulcerated surfaces. He hopes that others will give the drug a trial and report their results. Hitherto the use of chloride of ammonium has been mainly confined to simple catarrhal conditions of the respiratory tract, and its application in advanced tuberculous disease is, we think, novel.

VERATRUM VIRIDE IN ECLAMPSIA.

At the Society of the Alumni of Bellevue Hospital, New York, Dr. Barrows related two cases of considerable interest. The first was that of a young German primiparous woman who had been troubled with frequency of micturition for some time. About a week before her admission her legs had become swollen. The night before her admission on her way to visit her medical man she had fallen down, become unconscious, and had gone from one convulsion into another at intervals of about twenty minutes. The convulsions subsequently became more frequent, occurring every five minutes. On admission her temperature was 105·4° F., and the pulse 126, while her pupils were pin point in size. An ounce of urine was drawn off by the catheter, and this was found to be almost solid albumin and to contain granular and hyaline casts. The uterus was next emptied, the cervix being incised and forceps applied. Two hours after this the convulsions recurred. Two drops of croton oil were administered, and five minims of tincture of veratrum viride were given hypodermically every hour until four doses had been given. In a few hours her pulse became soft and regular, and her temperature was 100°. There was no recurrence of convulsions, and in twenty-four hours 108 ounces of urine were drawn off with a specific gravity of 1015. This contained a trace of albumin with hyaline and granular casts. Uninterrupted recovery took place. The second case was that of a multiparous woman seen on the same day. In her case a similar procedure was followed and with an equally gratifying result. Dr. Barrows, in a few remarks commenting on the cases, drew special attention to the administration of veratrum viride in such conditions. It had been for a long time used in the Southern States, apparently with success, in such cases as those described, and he directed special attention to its effect in promoting urinary secretion and in this way probably controlling the convulsions.

AN ITALIAN TOWN DAIRY.

By W. W. BALDWIN, M.D.

I AM acquainted with an honest peasant family who have milk and sour wine to sell. They live wisely outside the city limits to escape that last and heaviest burden of taxation upon the poor, "il dazio consumo." This tax, of not under 25 per cent. is levied by our Florentine city government upon every necessity of life that passes any of the gates through the iron barrier drawn about Florence. A fine antique stone portal, with great wrought-iron gate of mediæval workmanship, opens into a picturesque paved courtyard. To the left rises a grey, grim, castellated tower, all that remains of a stately old Tuscan villa. In front of this stands a beautifully sculptured stone well-curb whose decorated iron top, doubtless wrought by the same cunning hand that created the artistic gate, over-arches all like a flower. To the right, encroaching somewhat upon the courtyard, lies a group of dilapidated houses in base stucco, doubtless of modern construction. These serve as tenements to various poor families, but the peasants live safely in the tower like hawks in their nest. The vineyard, with its trailing vines festooned from tree to tree, one of the peculiar charms of Tuscan landscape, leads down through ineffable vistas to a shining stream. The farther bank, covered with silver birches, aspens, and larches, rises abruptly to vine-clad slopes. Sweeping up beyond, like a vision, is one of the transcendent, indescribable panoramas of classic Italy, whose background is the noble-crowned height of Fiesole, uplifted above silver-grey olive groves.

My friend the peasant, for whom I had been waiting while making these observations, then came and conducted me to the cows, objects of my afternoon visit to this delectable nook of Old Florence. The stable upon inspection, with its thick stone wall, appeared to be the foundation for that group of flimsy houses to the right. There was a little wooden door by the side of a fine portal which had been bricked up and plastered over in true peasant fashion. Entering from radiant sunlight into dusky gloom, one could distinguish nothing until a barricaded window had been thrown open. Then a vaulted ceiling with supporting columns and exquisitely carved capitals, remains of frescoes long since irreparably ruined by damp and mould, and, above all, a beautifully proportioned interior, revealed what must once have been a gem of mediæval chapels. In a dark corner, standing knee-deep in stable litter, were two little dun-coloured cows, placidly blinking and eating of cabbage-stalks and other garden débris, truly a not very promising source of milk-supply, even with the help of the customary "elongation" from the well, it being a Tuscan superstition that "to baptise the milk encourages the cow."

"Do you turn your cows out every day in the field?" I asked. "Heaven forbid that I should tempt Providence," answered the peasant. "Some crazy English people once persuaded me to give my cows the freedom of the vineyard, because, they said, air and sunshine are good for milk. The blessed beasts went mad directly, and one, a perfect angel, broke her neck careering about. Truly," remarked he, with fine irony, "every wise man knows that cows require peace and quiet to ruminate prosperously, and the sun was ever bad for milk." Although the little beasts in question had been certified as perfectly well by a competent veterinary surgeon, nevertheless milk elaborated in such stunted, anæmic organisms from rubbish of food, in tainted air, away from sunlight, could not be wholesome. My friend and other peasants of reputed wisdom, moreover, assured me that rude change of immemorial habit invariably induces disease in these cows, which was proof, they thought, of great superiority in the Tuscan town dairy system. As unexceptionable milk, however, was my object, I did not seek to combat invincible prejudice at this time, but proposed, as a compromise, to purchase a "seasoned" Swiss cow upon my own account, the peasant contracting to feed her according to prescribed rule, to give a daily outing, and to strictly observe sanitary laws. A spacious octagonal temple (or antique summer-house?) in the vineyard happily afforded, with certain alterations, admirable stabling.

The problem of storing and transporting this milk unpolluted was most perplexing. One had dark suspicions that the well water was not free from organic infiltration, which subsequent analyses amply confirmed. The rush-covered flasks (*fiaschi*) of thin glass, universally employed to transport milk for immediate consumption, are picturesque, but very dirty, and swarming with bacteria. They are simply given a daily "lick and promise" with water from the nearest well, but never properly cleansed from one season's end to another. A kitchen near the ecclesiastical stable was then visited. Upon rude shelves in the corner were some green glazed terra-cotta receptacles into which the milking is poured and "baptised." An untrapped sink poured its tide of slop water, mixed with organic débris, into a leaky drain which could not be traced beyond the centre of the courtyard. "Here," said the peasant, "everything consumes itself." (These blind drains are popularly called "self-consumers.") In a dark alcove without means of ventilation except through the kitchen was a "luogo comodo" (convenient place), also untrapped. This opened directly into the large, unventilated, common cess-pit under the kitchen window, which was emptied every five or six months, and its contents employed for agricultural purposes. The smells from stable, sink, and cess-pit, together with something peculiar to generations of uncleanliness besides, made a combination too rank for any civilised nose. As might have been expected, this group of houses had been visited again and again by infection, various outbreaks of diphtheria having occurred, and latterly several children sleeping together in a room adjacent to the kitchen were down with scarlet fever. In the several Italian families supplied with this milk I discovered but one recent instance of undoubted infection from its use. A girl five years of age, who had not been exposed in any other way, sickened for a very mild attack of scarlet fever about fifteen days after first drinking it. From her the father contracted the disease and nearly lost his life in consequence. To this interesting case and the epidemic in general, however, I hope to devote a future paper. Here my purpose is to give a simple sketch of the average Italian town dairy. It is true one may not always find such a picturesque environment as at our farm even in Tuscany, but the trail of the mediæval serpent of uncleanliness is in them all. (One may except several

large dairies in the vicinity of Florence conducted upon the English system. These are unexceptionable in every respect, and at present supply the foreign colony with pure and wholesome milk.)

Perhaps the spell of antique Florence, slowly disappearing before the jerry-builder, possibly a missionary sentiment in cause of sanitation or personal friendship for the good, honest man, may have been my excuse for choosing this unpromising source of milk-supply. Be that as it may, our Swiss cow having taken possession of sanitary quarters in Diana's temple surrounded by vineyards, with food of the best and drinking-water from an unpolluted spring, our next step was to purchase an appropriate cart and English milking utensils of approved pattern, which are cleansed and sterilised daily. The cart, which stands when not *en route* under a thatched shed near our stable, serves meanwhile as dairy. Occasional unexpected visits are also made at the farm to ensure attention to detail. All this being satisfactorily accomplished, those mediæval horrors of leaky drains, foul kitchen, pestiferous stable, and unspeakable "conveniences" continually reproach one until steps shall have been taken to create there an oasis of sanitary righteousness. The question "Am I my brother's keeper?" will be easier to answer after these poor people have been delivered from the old haunting shadow of pestilence and death.

SANITARY EVOLUTION IN GLASGOW.

IT is not too often our good fortune to have to notice anything from the pen of the accomplished medical officer of health of Glasgow; but whenever Dr. J. B. Russell does appear in print we are prepared to find, not only that he has something important to communicate, but that his subject has been treated in a fashion at once able and refreshing. Unlike most other medical officers of health, on this side of the Tweed at any rate, Dr. Russell abstains from publishing an annual report, with rates of birth, sickness, and mortality, in orthodox form; and this he does from conviction that, except on the sure basis of a frequent census, even the best estimates of population for intercensal years must be so unreliable as to furnish rates which are merely worthless and misleading. In England, as in Scotland, this is well known to be the case, especially where small and rapidly changing areas have to be dealt with. Dr. Russell has, therefore, justification for the exceptional course to which he has for many years consistently and deliberately adhered. It by no means follows, however, that Dr. Russell fails to recognise the value of statistical methods, wherever these can be based on satisfactory foundations. That, on the contrary, he keenly appreciates the need of accurate numerical data as the very mainspring, as well as the test, of public health work, is proved by the excellent and comprehensive three-volume report on the vital statistics of Glasgow, which he issued after the census taking of 1881, the results of which formed the basis of the numerous and instructive tables which illustrate the volumes referred to.

We have just received another important contribution to sanitary literature from the pen of Dr. Russell, entitled "The Evolution of Public Health Administration in Glasgow," the subject being illustrated by the sanitary history of that city in the nineteenth century, with special reference to the period which has elapsed since the year 1854. From the preface we learn that an unbroken record of sanitary operations in Glasgow has been maintained throughout the last forty years. Speaking generally, the first ten of these years represent the period of awakening and groping for an instrument and a method; the remaining thirty represent the period of resolute endeavour, each successive decade exhibiting a stage in administrative progress. The anticipated revision in 1896 of the internal administration of the city, the removal and re-establishment in suitable premises of the sanitary department, and "the sense of quickening life now apparent in the city, which seems to foretell an era of new departures"—these are circumstances which, in Dr. Russell's judgment, mark the present time as especially opportune for a retrospect such as that which is now before us. In order to estimate the magnitude of the task which has been successfully grappled with in these last forty years it was necessary that some idea should be formed of the sanitary state of Glasgow in the first half of this century. Accordingly, Dr. Russell gives in Section I. of his book a review of the history of Glasgow from the commencement of the century down to 1854, Section II. being occupied with the results of public health work since the latter year and with the concomitant progress of hospital administration for the isolation of infectious disease.

Beginning with the opening years of the present century Dr. Russell gives a general survey of the several periods into which he has divided the ninety odd years which have since elapsed, keeping in prominence "a coherent reading of the moral of the narrative." In the years before 1855 the register of burials kept by the wardens of churchyards was the only available source of information as to the number of deaths or their causes. Mortality bills, made up from these sources and published from 1821 to 1832, kept vividly before the community the startling records of those times, when at frequent intervals the city was devastated by epidemics of fever and small-pox. Though typhus fever did not arrest attention specially until 1818, it had evidently been in the city from the beginning of the century. The subsequent history of this pestilence, in Glasgow as in other places, appears to have been like that of an active volcano, periods of deceptive repose alternating with violent eruptions. For short intervals infection smouldered in the "wynds," bursting out into epidemic fury as soon as the influx of immigrants had produced a susceptible population. Small-pox was scarcely ever absent, feeding chiefly on Celtic immigrants and becoming epidemic at intervals as they accumulated. There were three severe epidemics of cholera between 1832 and 1854, and in 1843 more than a quarter of the inhabitants in the poorer districts were attacked by famine fever. The present generation can with difficulty realise what such recurrent epidemics meant in the experience of their forefathers.

In 1837 the death-rate of Glasgow was 41 per 1000, one-fifth of which was caused by "fever" alone, which attacked at least 22,000 people in that one year. In 1847 the death-rate rose to 56 per 1000 living, of whom 10 per 1000 were killed by "fever," which is estimated to have attacked as many as 45,000 persons. It is proved beyond question, and the fact is attested by hosts of competent witnesses, that the sanitary state of Glasgow at the time referred to was at any rate as bad as neglect, prejudice, and ignorance could make it. Eminent medical men were then, as they have ever since been, to the fore in pointing out the dangers which threatened the health of the citizens and in suggesting appropriate remedies. At that period a large proportion of the population lived in dwellings so over-crowded on the soil as to be beyond the reach alike of sunshine and of air, and so confined as to leave no more space than was necessary for mere ingress and egress. The houses were constructed in utter defiance both of health and of decency, and their inmates were so completely deprived of the most primitive means of cleanliness as to have reached the lowest depths of physical as well as moral degradation.

We have not space for a tithe of the details by which Dr. Russell so vividly pourtrays the wretched conditions existing in Glasgow at the period here referred to—conditions which would scarcely be believed to have been possible in the present century but for the unimpeachable character of the authority who vouches for the accuracy of the description. Still, notwithstanding the urgency of the protests which were addressed to the

authorities of the time, it was not until after the year 1854 that even the most elementary measures were initiated to redress the evils thus prominently brought to light. Under the immediate stimulus of the cholera epidemic of 1848 Glasgow had already acquired power to demolish ruinous and dangerous dwellings; but this power was practically a dead letter, and was only enforced in case of houses that could no longer hold themselves upright. As a matter of fact, but little permanent good was done even in these cases, for, in consequence of the want of by-laws, the greed of property owners rapidly covered again the old sites with buildings scarcely superior to those which had been displaced. As Dr. Russell aptly phrases it, "All this was mere scratching of the surface," and it was not until twenty years later that anything effectual was done to improve the condition of the homes of the people. Of sanitation, in the modern sense of the term, there was none. Medical writers of the time relate that the great cholera epidemic above referred to was in full swing before any attempt was made even to disinfect houses or clothing. The late Dr. Sutherland is quoted as testifying to the disgraceful inefficiency of what passed for the sanitary service, and as explaining that the reason why human filth was allowed to accumulate in the "wynds" and "closes" was because this material was the perquisite of the householders, and, therefore, was only removed when the farmers thought fit to fetch and pay for it. In the year 1859 was effected perhaps the greatest and most permanent sanitary improvement ever adopted in Glasgow. In that year the Clyde was discontinued as a source of water-supply, and a splendid service from Loch Katrine was obtained in its stead. Thenceforward a vast improvement was noticeable in the public health, and cholera, at any rate in its epidemic form, practically ceased to be. But it was not until 1862 that a Sanitary Committee was nominated, and not until the following year that the first medical officer of health received his commission. Subsequently a lay nuisance officer, with a small staff of helpers, was appointed to look after the typhus fever epidemic which at that time was raging in Glasgow. In 1870 the first sanitary inspector was appointed, with a subordinate staff of forty-two officers, five of whom were females, at that time a novelty. In 1876 the hospital treatment of epidemic disease was taken over from the infirmary authorities by the municipality, who, five years later, resolved to open their fever wards to all citizens free of charge. In 1883 a new public washing and disinfecting establishment was added to the municipal preventive machinery, the object being, on the removal of an infectious patient, to prevent the spread of disease by purifying the house and all the surroundings of the sick.

In our rapid and necessarily imperfect review of this interesting work we have now followed the history of Glasgow sanitation down to almost the present day. Before closing the book we would notice one omission which the modesty of its author does not permit him to supply. From beginning to end of the 140 pages not a word is mentioned of the part which the medical officer of health himself has taken in the splendid sanitary achievements of the last quarter of a century. The name of J. B. Russell is, however, a household word throughout the public health service, whose members will, we believe, with one accord acknowledge the obvious fact that it is mainly to the energy, ability, and self-sacrificing care of Dr. Russell himself that the vast improvements chronicled in these pages have been effected.

IN Dr. Seaton's summary of notification returns in the administrative county of Surrey we notice that the county was quite free from small-pox during November, Influenza was present in several districts, but apparently does not prevail to a notable extent except in the Frimley district.

PUBLIC HEALTH IN THE CITY OF CHICAGO IN 1894.

CHICAGO, with its population of 1,567,727, is at the present time the second largest city of North America, New York, possessed of a population of 1,957,452, being the only one exceeding it numerically. After Chicago come Philadelphia and Brooklyn with populations of 1,139,457 and 1,055,000 respectively. Some idea of the cosmopolitan character of the people of Chicago may be gathered from the fact that there are in it but 949,092 Americans out of a total population exceeding one and a half millions, and that several of its districts are so distinctly foreign as to necessitate the employment of interpreters on the sanitary staff.

In his annual report for 1894 Dr. Arthur Reynolds, the commissioner of health, states that "Chicago continues to be not only the healthiest large city on the American continent, but the healthiest among all cities of magnitude in any quarter of the globe." He considers that the figures given at the official census were too low, but taking these as the basis of calculation the year 1894 yielded a death-rate of but 15·24 per 1000 of the population, and the "phenomenal healthfulness of the city continues to be a theme of incredulous comment by less favoured localities." In a table furnished in the report under review are given the population and death-rate of all the cities of the United States having populations over 200,000, and from this it appears that the rates in the several towns vary from 15·24 in Chicago to 24·88 in New Orleans. Taking now what are called the five lake cities—i.e., Chicago, Detroit, Milwaukee, Cleveland, and Buffalo, all of which are situated in the region of the great lakes and which together contain about 30 per cent. of the aggregate population of the great towns—it is found that their death-rate is but 15·56 per 1000, as compared with a rate of 19·88 per 1000 in the remaining cities. Dr. Reynolds states that an urban rate of less than 18 per 1000 has been pronounced incredible by the highest statistical authority in his country, and he wonders what will now be said as to the aggregate death-rate of the five lake cities. Dr. Reynolds will probably, too, wonder what the same authority will say to the 1894 death-rate of 17·8 per 1000 recorded for the 4,349,166 population of London. The death-rates of the five lake cities are certainly remarkably low, and it will be interesting to know to what their exceptional rates are due; whether, for instance, to any peculiarity of the age distribution of the population, or to the salubrity of their geographical position. The death-rate among the coloured element of Chicago—which amounted last census to 24,889—was during 1894 at the rate of 26·67 per 1000, as against a rate among the white population of 15·05. Violent deaths were responsible for a considerable portion of the mortality in Chicago during last year, and this seems to have been in large part due to the fact that within the corporate limits of Chicago there are over 2000 miles of railroad tracks, with more than 3000 street crossings over which 1400 trains pass daily. In spite of this the corporation does not compel the railway companies to maintain gates at the crossings, or even to employ signalmen to warn passengers of the approach of trains; in fact, one of the leading medical journals has spoken of Chicago as the "most blood-guilty city on earth." The epidemic of small-pox which occurred in Chicago during 1894 was, Dr. Reynolds reports, "the lesson of neglected vaccination," but nevertheless it is very interesting to observe the manner in which, when the consent of the city council had been obtained, vaccination was carried out. In one month no less than 586,500 vaccinations were performed, and in the whole year 1,084,500 out of a population of about 1,600,000. This work was performed by 500 vaccinators, specially appointed. Dr. Reynolds supplies a chart in his report showing the remarkable manner in which small-pox, although obviously in the ascendant, was at once arrested owing to the wholesale vaccination. Dr. E. Garrett, the chief medical inspector of Chicago, states that in his experience the vaccination of nursing infants is a difficult matter, and that they also manifest for a short time after birth resistance to small-pox. The diagnosis of the exanthemata in the case of negroes is said

by the same observer to be a very difficult matter, and for this reason all doubtful cases occurring among the coloured population are at once quarantined until the diagnosis is established. Dr. Benson and Dr. Chapman, two of the medical inspectors, in reporting upon the small-pox hospital, state that as a result of their experience they have arrived at the conclusion that there is no period of life at which vaccination may not be safely performed, and that there is no physiological condition in which the human animal can exist which will contra-indicate the performance of vaccination. It is to be regretted that the two gentlemen just referred to do not give more details in respect to this very interesting question. It may be added that Dr. Benson and Dr. Chapman make a practice of washing the arm to be vaccinated with soap and warm water, and, after washing, to rinse with "rather hot water." Dr. Warren, the physician in charge of the Chicago small-pox hospital, which building he considers a disgrace to "the metropolis of the West," records two cases of variola in domestic animals. In one case his own horse developed a typical variolous eruption which passed hrough the papular, vesicular, and pustular stages; and in the second case a cat brought into the hospital wards went through similar symptoms a fortnight after admission.

There are many other interesting subjects in Dr. Reynolds's elaborate report to which we wish we could devote space, but we must limit our further remarks to the water-supply of Chicago and its apparent effect upon the death-rate from enteric fever. Many of our readers have probably fresh in their memories the Report of THE LANCET Special Sanitary Commission of Inquiry concerning the Water-supply of Chicago, U.S.A., which appeared in THE LANCET of April 8th, 1893, so that it will be unnecessary to do more than state that since the date in question some of the intakes in Lake Michigan have been so lengthened as to ensure that all water supplied to Chicago shall be taken in at a distance of at least two miles from the shore. Dr. Reynolds contributes a special report upon the water-supply of the city at the end of 1894, and he states that the chemical and bacteriological analyses which have been made from time to time show that, in the "conservative" phrase of the laboratory director, Dr. Gehrmann, "the character of the water is that of a usable drinking-water." It seems, too, that, after storms followed by winds which tend to carry the shore water in the direction of the intakes, the number of bacteria in certain of the shorter intakes has been excessive, and there have, too, been indications chemically of an excess of organic matter. The water from the four-mile intake has been not merely usable, but a pure water as classified by analysts. There is obviously, Dr. Reynolds observes, need for more four-mile tunnels. Taking now the typhoid fever mortality of Chicago as an index of the purity of its water-supply, it is to be observed that between Jan. 1st, 1890, and Dec. 31st, 1892, at which latter date water was let into the four-mile tunnel, the annual death-rate from enteric fever averaged 11·5 per 10,000 of the population. In 1893, during the first year of using the new tunnel, the rate was 4·18, and in 1894 3·14 per 10,000. The reduction in the typhoid fever mortality was shown by all the wards in the city, and this fact is, Dr. Reynolds considers, in favour of the reduction being due to improved water-supply. A remarkable reduction has also been observed in diarrhœal mortality.

Up to the close of 1892 Chicago had the highest typhoid fever mortality of the several principal cities of the Union—all those having populations of 200,000 or over. In 1894 it ranked tenth amongst the seventeen. This reduction in the typhoid fever mortality is certainly a very striking one, and much of the evidence adduced tends to support a thesis of water-borne infection as an explanation of the prevalence and decline of this disease. Still we must confess we shall await with interest the rates of subsequent years. Other American cities besides Chicago have evinced within recent years some very remarkable fluctuations in their death-rates from typhoid fever. For instance, the city of Detroit in 1890 and 1891 ranked first in the list of large American cities as regards the smallness of its enteric fever mortality, while in the following year it occupied a place sixteenth in the list, rising again in 1894 to the fourth place. Dayton, too, has had its oscillations in this respect, as also has St. Louis. One of the most interesting papers in the Chicago report is by the Chief Smoke Inspector, and it will well repay perusal by those medical officers of health more especially concerned with the smoke nuisance.

A TURKISH ARMY SURGEON.

MR. WILLIAM V. HERBERT, the author of "The Defence of Plevna, by One who Took Part in It,' has received a letter from Dr. Charles Ryan of Melbourne, who in 1877 was one of the surgeons in Osman Pasha's army. The following extracts may interest our readers:—

"I saw your book yesterday for the first time and read it with intense interest. I am an Australian by birth. I graduated in medicine from the University of Edinburgh; thence I went to Paris, where I spent a few months at the university; and finally spent the winter of 1875-76 in Vienna. I always had a strong desire to visit the East, and in taking up the *Times* one day I saw an advertisement to the effect that the Turkish Government required thirty surgeons to proceed to the seat of war (the Servian war had just broken out). I obtained an introduction to the Turkish ambassador, and received an appointment at the rate of £200 per year, to be paid in gold, the rank of a major and four rations. I proceeded to Constantinople, where I spent a week, and one fine morning early in June I found myself in the train with a thousand Turks, bound I knew not whither. We travelled together to Tatar Bazardjik, thence we marched to Sofia, where we spent a few days. From Sofia we went to a place five miles the other side of Pirot, where we camped, not very far from the Servian border; thence we marched to Akpalankah, where we spent three weeks, and thence to Nish. After the fall of Alexinatz I stayed in Widdin until Osman Pasha's departure to Plevna.

"I cannot imagine who the long English correspondent mentioned in your book could have been. The only English correspondents that I knew were poor Nicholas Leader, who died in the Shipka Pass a short time afterwards, and poor Frank Power, who was afterwards British Consul in Khartoum, and was killed by the Arabs with Colonel Stewart.

"On the declaration of peace with Servia, Osman Pasha gave a ball, to which none but field officers were invited. We sent to Crayova in Roumania (fifty miles) for our supper. I was curious to know where our partners were to come from, and was amazed to find so many pretty girls present, chiefly Grecian, Bulgarian, Roumanian, and Spanish Jewesses, and you know how pretty some of the latter were. Three days before war was declared I hired a boat and paid a visit to Calapat, and spent a most interesting day. I remember well the scene that occurred when the first shot was fired. I was lunching with Colonel Stracey, at a hotel kept by a Polish Jew on the banks of the river, when, without any warning, the guns began to fire. The excitement and the scene which followed are admirably portrayed in your book. This was at 1 P.M. on July 19th, 1877. I jumped on my horse and rode due north, tied up my horse on the left side of the range, and went up to where we had three batteries of artillery in action, and I saw one of the layers, while setting a gun, have his head taken clean off. I was so affected that I turned sick and vomited. A month later I could have seen fifty men have their heads taken off without feeling the slightest emotion. There were only seventeen surgeons in Plevna at this time, and we were working for about forty-eight hours on a stretch. It was our custom, as you are aware, after heavy engagements to dress the wounded and send two-thirds of them in carts to Sofia, leaving behind only the gravely wounded who were unable to travel. With regard to our medical staff, Hassib Bey was, as you state, our head—a very decent old fellow, who took a fancy to me. Most of the doctors were Hungarian Jews; there was one Austrian and one Hungarian called Kronberg. Kronberg was the only man in the whole crowd who had a spark of pluck, the rest were arrant cowards.

"During the second battle of Plevna I rode out continually from the headquarters camp. I was provided with bandages, lint, &c., and lent a helping hand wherever I saw any wounded. The Russians having commenced to flee Hassan Sabri Pasha gave the order for the cavalry to follow them up, and my friend Mustapha Bey waved his sword to me and shouted, 'Come along.' Eventually the order was given by Hassan to retreat, as he was afraid lest our retreat would be cut off, and we galloped towards a field of maize. Never will I forget my sensations. While facing the enemy I had no fear, but now all was changed. When you are in the open and the bullets come hissing past you, you cannot say how close they actually pass; but on this

ride I saw the bullets striking the leaves and stems all about me, and for many years afterwards, whenever I had nightmare, it was always that ride through the maize field. On the morning following the battle I rode out to the Grivitza redoubt and saw close by an immense number of Russians dead. They were all stripped naked, and many of them were in the most extraordinary postures.

I took part in the fight at Pelishat (Aug. 31st), our ambulance being placed about three-quarters of a mile behind the fighting. When the troops retired two soldiers, one dying with a wound through his neck and the other with a shattered thigh, were being left behind. The most adventuresome of the Russians were within 200 yards of me, but I carried these two wounded on my horse for about a mile, when the man with the shot through his neck died, and I was able to bring the other man back to Plevna. I also took part in the expedition to Lovdcha (Sept. 3rd). I received no warning, simply jumped on my horse, took my great-coat and a few instruments. When we got within about four miles of Lovdcha we were told that the Russians had taken the place two days previously. I accompanied the cavalry, and we came to a large knoll, on which were thirty or forty walnut trees, and there we met with a horrible spectacle. Some 400 Turkish soldiers in their flight had been overtaken here and killed. Each man had his rifle broken beside him; their faces were slashed, and they were cut to pieces. On the march back to Plevna we passed several deserted Bulgarian villages. Those memorable days in September, can one ever forget them? I had a little desultory fighting on my own account when Skobeleff was taking the two redoubts and the troops were flying in hundreds, and the shrapnel shells were exploding on the Plevna side of the hill. Riding to the redoubt I did my level best to rally the troops. During the night we moved all the wounded who were in the hospitals in the south of the town to the north, and the next morning we had something like 3000 of them lying out in the open near the main road. My house was so close to the Kavanlik redoubt that during the night my horse, which was tied up in the yard, received a bullet wound, and all night long the bullets kept striking the shutters. The dreadful uncertainty of that night is strongly impressed on my memory. The morning broke on a terrible scene. After Tewfik Pasha's glorious success I remember the joyous cry of 'Allah!' given vent to by our troops as they rushed forward. This was taken up by the reserves in the valley below, thence travelling like *feux de joie* all over the lines of Plevna. We were now in a state of siege, and our stock of bandages, medicines, dressings, &c., had run out. We had 5000 wounded to look after. I alone had charge of between 200 and 300 of the most gravely wounded, with only two Iarrabashi, or Turkish surgeons, to assist me. Nothing could have been more terrible than the position in which I was placed: absolutely without remedies or dressings, an hospital which contained five times its proper number of inmates, and nearly all the wounds maggoty. All I could do was to scoop out these creatures with my fingers. I had no beds and no mattresses; the men were lying on the floor in the clothes in which they were shot. More brave, enduring, long-suffering, heroic patients I shall never see again. I was so disheartened at the dreadful misery and my inability to alleviate it that I felt inclined to sit on the steps of my house and cry like a child. The only correspondent we had was Ollivier Pain, a French Communist. As he had no proper firman Osman Pasha sent him back to Constantinople to obtain one, and he returned to Plevna shortly after the third battle, before the taking of Telisch. He it was who wrote that most stirring and noble reply of Osman Pasha to the Grand Duke in which he declined to surrender Plevna. I remained in Plevna until the second week in October. During this time I was worked pretty well to death. The enormous number of wounded we had on hand, and the few medical men, will easily account for that. A few days before the Russians cut off Plevna for the last time by the taking of Garna Dubnik I went to Constantinople, and before I could get back to Plevna it was closed to the outside world. I then went straight to Erzerum, where I served through the siege. There were no correspondents there, and if the horrors of that siege were written people would not credit that such things could happen in this enlightened century. I have as the result of my daily intercourse and my insight into their character the highest admiration for the Turks. I have always thought that a Turkish army commanded by British or German officers would be well-nigh invincible.

"In conclusion, allow me to offer to you my sincere thanks for the intense pleasure your book has given me. It has awakened some of the pleasantest recollections and memories of my life."

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE CASE OF MR. R. B. ANDERSON.

A DEPUTATION from the Civil Rights Defence Committee, introduced by the Earl of Stamford as President, waited on the committee of the Association of Fellows of the Royal College of Surgeons of England on Wednesday, Dec. 4th, 1895. Mr. George Pollock, President of the Association, occupied the chair. The deputation consisted, in addition to Lord Stamford, of Major-General Graham, Mr. R. B. Anderson, Mr. Henry Anderson, and Mr. Walter Rivington. Telegrams and letters regretting inability to take part in the deputation were received from Mr. William Williams, J.P., treasurer of the British and West Indian Alliance, Mr. H. T. Butlin, treasurer of the British Medical Association, Dr. E. G. Younger of the London and Counties Medical Protection Association, and the Hon. Stewart Erskine, Vice-President of the British and West Indian Alliance. Before proceeding to the business of the deputation the hon. sec., Mr. Percy Dunn, read a letter from General Graham conveying the thanks of the Civil Rights Defence Committee to the committee of the Association for having, at the last meeting, adopted a resolution expressing appreciation of the action of the Council of the College in coöperating in support of the rights of a Fellow and Member. A letter was also read from Mr. Holmes to the effect that the published reports of Mr. Anderson's case made it quite clear that he had suffered the grossest injustice as well as indignity—the former at the hands of the Trinidad judges, and the latter at those of the English—and that he ought to be fully and fairly compensated, and that the Association could not be better occupied than in supporting Mr. Anderson in obtaining compensation and the reversal of the illegal sentences and orders against him.

Lord Stamford then briefly introduced the deputation, and called upon Major-General Graham to read a statement as to the measures now being adopted by the Civil Rights Defence Committee.

After thanking the committee of the Association, Major-General Graham expressed a hope that the measures adopted would be confirmed by the general meeting of the Association on the 11th inst., and that the example would be followed by every remaining medical or surgical association or society in the kingdom. In such a hope they had already had much encouragement, several branches of the British Medical Association having organised subscriptions, and some having voted amounts from their funds. The Torquay Medical Society had lately done the same, recommending a vote of £5 from its funds, and organising a uniform subscription of 5*s.* each from members, amounting in all to £18. Besides this, that society had adopted resolutions calling upon Her Majesty's Ministers, Members of Parliament, public men, and public bodies to unite with the Civil Rights Defence Committee in defence of the common rights of all medical men and all British subjects, and had obtained the signatures of its members to a memorial to Commander Philpotts, R.N., M.P. for the Torquay Division. Mr. Cohen, M.P., had come forward in the most generous way and promised his support to the committee. The Council of the British Medical Association had been asked to use its great influence with its branches throughout the country, and the friends of Mr. Anderson in Lincolnshire, his native county, were taking up the matter warmly. By such means it was hoped to enlist the sympathy and coöperation of other public bodies, especially the guilds and corporation of the City of London, than which no public bodies in the kingdom were more interested in standing forward, and being seen to stand forward, in defence of the ancient rights and liberties of Englishmen. They had a special ground to do so in this case, since the

rights of one of those guilds, the Worshipful Society of Apothecaries, had been violated, Mr. Anderson being a licentiate and also a silver medallist of that guild, and his licence granted by them under Charter being rendered valueless. Careful and patient methods were essential to success, and only general coöperation and voluntary aid such as had been described could win the contest of truth and justice and law against malice and unlawful oppression. Major-General Graham concluded by asking the Association to appoint a representative on the Civil Rights Defence Committee.

In response to an appeal from Lord Stamford Mr. Rivington supported the proposals of the deputation, and remarked that there had been nothing like the case of Mr. Anderson since the time of James II.

Mr. Gant, who had lately read the papers, stated that he had been filled with amazement and literally bewildered, the history of the case being more like some extraordinary fiction than bare facts ascertained and proved.

Dr. Robert Barnes remarked that it was stranger than any fiction.

In response to questions Mr. Anderson explained that he was not originally singled out for attack, but that the attack by Sir John Gorrie was against all the more respectable portion of the community in Trinidad and Tobago, and that it had been so powerful and overwhelming as to reduce its victims to complete helplessness and submission, so that he became eventually the sole individual able to maintain any resistance. Sir John Gorrie's motive was to figure as the champion of the black people and lower classes. Full particulars of the medical case were given in the first interim report, and in the letter of the three other medical men in Tobago (Dr. Tulloch, Mr. Purser, and Dr. Blance), as well as those of the two other cases amalgamated with it. Mr. Anderson further explained how the general principle involved in the wrongs done to him affected others equally.

Mr. Pollock, on behalf of the committee, undertook to bring Mr. Anderson's case before the Association at its general meeting.

The deputation then withdrew.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Staffordshire County Sanitary District.—The population of the administrative county of Stafford, estimated to the middle of 1894, was 797,101; its general death-rate for the year was 16·2 per 1000 (urban 16·5, rural 15·4), and the zymotic mortality 1·47 per 1000 (urban 1·68, rural 0·97). Dr. George Reid, as heretofore, adheres to his plan of reporting under subject headings, in the place of summarising separately the report of each medical officer of health in the county, a practice common amongst most other county medical officers of health. The sanitary committee of the county council has recently delegated some of its detailed work to three sub-committees, a step which appears to have had the effect of considerably facilitating their procedures. During the year 1894 numerous inspections of water-courses were carried out by the council in its capacity as a sanitary authority under the Rivers' Pollution Acts, and satisfactory progress has, Dr. Reid states, been made in the prevention of river pollution. In connexion with this subject it appears that an appeal on the part of the Staffordshire County Council to the Warwickshire County Council for assistance in obtaining information in regard to the pollution of the river Tame during its progress through Warwickshire did not meet with a very hearty response, and Dr. Reid has therefore been requested to ascertain the facts himself, and to report to the council as to what share the Warwickshire local authorities have in the pollution of the said river. In addition to the inspections of rivers in the county considerable attention has been paid to canals, and the pollutions discovered have been brought to the notice of the canal companies, who bid fair to become valuable allies as regards the prevention of pollution. In the matter of small-pox Dr. Reid regrets that with few exceptions the local reports do not contain such information as regards the incidence of the disease upon the vaccinated and unvaccinated as to enable a full summary to be given, but he supplies the following statement, which is of considerable interest. Of 1356 cases, 1183 occurred among vaccinated and 173 among unvaccinated persons. The deaths numbered 77, of which 23 occurred among vaccinated and 54 among unvaccinated persons, so that the case mortality in the two classes was as follows:

	Per cent.
General case mortality	5·6
Case mortality among vaccinated persons	1·9
" " unvaccinated persons	31·2

The medical officer of Handsworth, in reporting upon some cases of enteric fever which occurred in his district, states that in two cases the evidence pointed to the consumption of mussels as the cause. Unfortunately we are not told whether in the cases in point the mussels were consumed raw or cooked. Dr. Reid furnishes in his report an interesting table showing to what extent the isolation hospitals are made use of in the respective districts. There is, as was to be expected, an enormous difference in the several districts in the percentage of cases isolated as compared with those notified. For instance, in the urban districts where isolation accommodation is available the percentage of isolations to notifications varies from 1·3 per cent. to 90·3 per cent. The divergencies are accounted for in large part by the imperfect accommodation provided in some instances and by the charges for admission which are made in others. As bearing upon this question Dr. Reid hopes that a conference will shortly be held at which the provision of isolation accommodation for the county will be considered.

Bradford Urban Sanitary District.—So long a period has elapsed since we have had the pleasure of noticing one of Dr. Arnold Evans' reports that we were beginning to have doubts as to whether he had continued the practice of issuing annual reports. We have, however, just received those for the years 1893 and 1894 bound together. The most interesting part of the volume is the table relating to the incidence of small-pox in and around the Leeds-road Fever Hospital during the last epidemic of the disease in Bradford, and the history of Bradford's action as a result of the experience then obtained is instructive in a high degree. The broad facts in connexion with the occurrence are briefly these: an exceptional incidence of small-pox occurred around the Leeds-road Hospital shortly after acute cases of that disease were isolated there, an incidence which fell upon the houses in the several quarter-mile zones from the hospital outwards in the percentages of 10·4, 6·8, 2·1, and 1·0, the incidence on the houses in the whole of the borough being 1·6 per cent., on those in the special area 3·6 per cent., and on those outside the special area 0·6 per cent. These remarkable gradations in incidence were best explained, Dr. Evans stated, in a paper he read before the British Medical Association at Bristol in 1893 on a thesis "that the poison was conveyed aerially direct from the wards of the hospital." Owing to this exceptional incidence of the disease around the Leeds-road Hospital use was made of a temporary structure erected at Scholemoor, and on this being ready all subsequent cases of the disease were removed thither. From this time the incidence of the disease around the Leeds-road Hospital began to abate. Unfortunately a disastrous fire, which our readers may remember, occurred at Scholemoor, and the cases had to be returned to Leeds-road—a step which led to a considerable extension of the disease. The structure at Scholemoor was, however, rebuilt and used again for the isolation of small-pox, the outbreak shortly after coming to an end. After this experience the corporation of Bradford seriously turned their attention to the acquisition of a site for a small-pox hospital which should be remote from at least their own population, and they have now acquired a piece of land some twenty-eight acres in extent in an isolated position, where they propose to erect a hospital for the reception of patients suffering from small-pox alone. It should be mentioned to the credit of Bradford that a few years ago the authorities expended a considerable amount of money in an endeavour to provide a small-pox hospital on the lines suggested by the Royal Commission on Small-pox and Fever Hospitals—i.e., one in which all the outgoing air should be sterilised. It is, however, much to be regretted that this experiment was unsuccessful, and the special apparatus provided has now, we believe, been demolished. There were in all 935 cases of small-pox

treated in the Leeds-road Fever Hospital, and the protection afforded by vaccination may be gathered from the following table:—

		Deaths.	Death-rate.
All cases	935	100	10·7 per cent.
Vaccinated cases ...	706	36	5·1 "
Doubtful cases ...	34	9	26·5 "
Unvaccinated cases	195	55	28·2 "

From these figures Dr. Evans points out that "(1) if the unvaccinated had died only at the rate of those vaccinated there would have occurred, not 55 deaths, but 10 deaths; (2) if the vaccinated had died at the rate of those unvaccinated there would have been, not 36, but 193 deaths; (3) if all the patients had been vaccinated there would have been only 48 deaths instead of the 100 deaths actually recorded; (4) if all the patients had been unvaccinated there would have occurred 264 deaths in place of the 100 deaths actually recorded."

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 5785 births and 3644 deaths were registered during the week ending Dec. 7th. The annual rate of mortality in these towns, which had declined in the four preceding weeks from 22·1 to 17·9 per 1000, was again 17·9 last week. In London the rate was 17·3 per 1000, while it averaged 18·4 in the thirty-two provincial towns. The lowest rates in these towns were 10·0 in Croydon, 10·9 in Derby, 11·3 in Brighton, and 12·6 in Huddersfield; the highest rates were 20·7 in Wolverhampton, 23·5 in Manchester, 23·7 in Blackburn, 27·3 in Salford, and 28·9 in Liverpool. The 3644 deaths included 561 which were referred to the principal zymotic diseases, against 548 and 529 in the two preceding weeks; of these, 207 resulted from measles, 109 from diphtheria, 80 from whooping-cough, 66 from "fever" (principally enteric), 54 from scarlet fever, 41 from diarrhœa, and 4 from small-pox. No fatal case of any of these diseases occurred last week in Croydon, Derby, or Huddersfield; in the other towns they caused the lowest death-rates in Swansea and Sunderland, and the highest rates in Manchester, Wolverhampton, Liverpool, Blackburn, and Salford. The greatest mortality from measles occurred in Liverpool, Manchester, Oldham, Salford, and Blackburn; from scarlet fever in Gateshead; from whooping-cough in Bradford; and from "fever" in West Ham, Norwich, Birkenhead, and Newcastle-upon-Tyne. The 109 deaths from diphtheria included 69 in London, 5 in Liverpool, 4 in Wolverhampton, 4 in Birmingham, and 4 in Manchester. Two fatal cases of small-pox were registered in West Ham, 1 in London, and 1 in Oldham, but not one in any other of the thirty-three large towns. There were 87 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 7th inst., against 86, 89, and 79 at the end of the three preceding weeks; 18 new cases were admitted during the week, against 23, 20, and 9 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2805, against 2845, 2807, and 2799 on the three preceding Saturdays; 312 new cases were admitted during the week, against 298, 296, and 325 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 447 to 285 in the four preceding weeks, further fell to 264 last week, and were 194 below the average. The causes of 58, or 1·6 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Oldham, Bradford, Newcastle-upon-Tyne, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in Cardiff, Birmingham, Liverpool, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the four preceding weeks from 21·4 to 17·4 per 1000, rose again to 19·5 during the week ending Dec. 7th, and was 1·6 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·2 in Leith and 15·4 in Perth to 24·1 in Aberdeen, and 24·4 in Dundee. The 562 deaths in these towns included 21 which were referred to diarrhœa, 19 to whooping-cough, 10 to diphtheria, 8 to scarlet fever, 6 to measles, 3 to "fever," and not one to small-pox. In all, 67 deaths resulted from these principal zymotic diseases, against 48 and 49 in the two preceding weeks. These 67 deaths were equal to an annual rate of 2·3 per 1000, which was 0·5 per 1000 below the mean rate last week from the same diseases in the thirty-three large English towns. The 21 fatal cases of diarrhœa showed a further increase upon those recorded in recent weeks, and included 5 in in Glasgow, 5 in Edinburgh, and 5 in Dundee. The deaths referred to whooping-cough, which had been 10 and 11 in the two preceding weeks, further rose to 19 last week, of which 12 occurred in Glasgow and 4 in Aberdeen. The fatal cases of diphtheria, which had been 3 and 6 in the two preceding weeks, further rose to 10 last week, and included 6 in Glasgow. The 8 deaths from scarlet fever corresponded with the number in the preceding week, and included 4 in Aberdeen and 2 in Glasgow. The 6 fatal cases of measles exceeded the number recorded in any recent week, and included 3 in Greenock and 2 in Dundee. The deaths referred to diseases of the respiratory organs in these towns, which had been 123 and 107 in the two preceding weeks, rose again to 132 last week, but were 37 below the number in the corresponding week of last year. The causes of 32, or nearly 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the three preceding weeks from 23·1 to 25·1 per 1000, declined again to 20·1 during the week ending Dec. 7th. During the past ten weeks of the current quarter the death-rate in the city has averaged 24·1 per 1000, the rate during the same period being 18·1 in London and 17·4 in Edinburgh. The 135 deaths registered in Dublin during the week under notice showed a decline of 33 from the number in the preceding week, and included 6 which were referred to the principal zymotic diseases, against 10 in each of the two preceding weeks; of these, 2 resulted from whooping-cough, 2 from diarrhœa, 1 from small-pox, 1 from "fever," but not one either from measles, scarlet fever, or diphtheria. These 6 deaths were equal to an annual rate of 0·9 per 1000, the zymotic death-rate during the same period being 3·0 in London and 1·3 in Edinburgh. The 2 fatal cases of whooping-cough corresponded with the number recorded in the preceding week. The deaths referred to different forms of "fever," which had been 2, 3, and 4 in the three preceding weeks, declined again to 1 last week. The 135 deaths in Dublin last week included 29 of infants under one year of age, and 29 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons were below those recorded in any recent week. Three inquest cases and 4 deaths from violence were registered; and 55, or more than a third, of the deaths occurred in public institutions. The causes of 8, or nearly 6 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING NOVEMBER, 1895.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during November in each of the forty-three sanitary areas of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 13·8 per 1000 of the population, estimated at 4,392,346 persons in the middle of the current year. In the three preceding months the rates had been 9·9, 12·4, and 14·5 per 1000 respectively. Among the various sanitary areas the rates were considerably below the average in Hammersmith, St. George Hanover-square, Westminster, Stoke Newington, St. Olave Southwark, and Bermondsey; while they showed the largest excess in Chelsea, Hackney, Bethnal Green, Limehouse, Mile End Old Town, Poplar, and Greenwich. The prevalence of small-pox in London showed a marked decline during November, the 32 cases notified during the month including 7 in Camberwell, 5 in Greenwich, 4 in Poplar, and 3 in Limehouse sanitary areas. The Metropolitan Asylum Hospitals contained 73 small-pox patients at the end of November, against 331, 227, and 103 at the

MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON—NOVEMBER, 1895.

(Specially compiled for THE LANCET.)

SANITARY AREAS.	Estimated population in the middle of 1895.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.										Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON...	4,392,346	32	2274	1238	—	457	12	20	616	—	4649	13·8	2	377	77	265	74	—	77	1	80	953	2·8	6131	18·2	140
West Districts.																										
Paddington	122,756	—	44	31	—	8	—	1	11	—	95	10·1	—	—	1	8	1	—	2	—	1	13	1·4	169	17·9	110
Kensington	167,671	1	65	30	—	14	—	—	28	—	138	10·7	—	9	5	17	6	—	2	—	2	41	3·2	203	15·8	178
Hammersmith	108,429	2	35	16	—	9	—	—	9	—	71	9·5	—	9	2	4	3	—	—	—	—	20	2·4	133	16·0	144
Fulham	117,745	—	33	52	—	11	—	2	10	—	108	12·0	—	9	—	11	3	—	—	—	5	33	3·7	150	16·6	169
Chelsea	99,930	—	84	43	—	17	1	—	13	—	158	20·6	—	3	3	13	3	—	—	—	—	25	3·3	154	20·1	119
St. George Hanover-square	74,037	—	29	6	—	5	—	1	7	—	48	8·5	—	5	1	3	—	—	—	—	3	12	2·1	76	13·4	111
Westminster	54,003	—	15	14	—	2	—	—	3	—	34	8·2	—	6	1	5	1	—	1	—	2	16	3·9	79	19·1	224
St. James Westminster	23,149	—	12	5	—	1	1	—	1	—	20	11·3	—	1	1	1	—	—	1	—	—	4	2·3	28	15·8	30
North Districts.																										
Marylebone	137,392	—	38	11	—	18	—	—	25	—	92	8·7	—	6	—	3	4	—	2	—	5	20	1·9	174	16·5	105
Hampstead	77,592	—	30	20	—	4	—	—	6	—	60	10·1	—	—	2	2	—	—	—	—	1	5	0·8	67	11·3	143
St. Pancras	233,543	2	135	58	—	23	—	1	42	—	261	14·6	—	63	9	24	3	—	5	—	7	111	6·2	412	23·0	165
Islington	335,929	—	186	72	—	37	1	4	28	—	328	12·7	—	9	5	17	—	—	6	—	6	45	1·7	417	16·2	122
Stoke Newington	35,234	—	12	7	—	2	—	—	2	—	23	8·5	—	—	—	—	—	—	1	—	—	1	0·4	44	16·3	117
Hackney	215,623	—	178	63	—	52	3	1	40	—	337	20·4	—	16	2	11	11	—	7	—	7	54	3·3	312	18·9	143
Central Districts.																										
St. Giles	37,654	—	16	11	—	2	—	—	9	—	38	13·2	—	2	1	—	—	—	—	—	1	4	1·4	51	17·7	172
St. Martin-in-the-Fields	13,536	—	2	6	—	3	—	—	1	—	12	11·6	—	1	—	2	1	—	—	—	1	5	4·8	20	19·3	294
Strand	22,586	—	8	4	—	5	—	—	1	—	18	10·4	—	2	—	—	—	—	—	—	1	3	1·7	35	20·2	180
Holborn	32,188	—	29	2	—	6	—	—	5	—	42	17·0	—	2	2	—	—	—	—	—	1	5	2·0	48	19·4	208
Clerkenwell	65,036	—	45	18	—	6	—	—	11	—	80	16·0	—	27	1	2	1	—	3	—	—	34	6·8	123	24·7	231
St. Luke	40,763	—	10	8	—	7	—	—	12	—	37	11·8	—	3	—	1	—	—	1	—	1	6	1·9	82	26·2	144
City of London	33,824	1	19	7	—	1	—	—	2	—	30	11·6	—	1	—	—	1	—	1	—	—	3	1·2	69	25·1	164
East Districts.																										
Shoreditch	122,932	—	71	27	—	13	2	—	23	—	136	14·4	—	3	2	3	4	—	4	—	2	18	1·9	159	16·9	147
Bethnal Green	130,061	2	98	47	—	18	—	—	31	—	196	19·6	—	16	1	12	3	—	4	—	2	36	3·6	228	22·9	139
Whitechapel	75,820	—	57	23	—	1	—	—	17	—	98	16·9	—	2	1	2	—	—	—	—	1	6	1·0	123	21·1	123
St. George-in-the-East	45,227	—	25	14	—	2	—	—	10	—	51	14·7	—	1	—	4	1	—	—	—	1	6	1·7	74	21·3	127
Limehouse	56,885	3	42	21	—	7	1	—	7	—	81	18·6	—	7	—	2	1	—	1	—	1	5	1·1	94	21·5	107
Mile End Old Town	108,443	1	64	53	—	10	—	1	18	—	147	17·7	—	3	1	8	4	—	1	—	2	20	2·4	161	19·4	131
Poplar	171,230	4	102	94	—	21	—	—	34	—	255	19·4	—	12	2	17	2	—	6	—	1	40	3·0	246	18·7	133
South Districts.																										
St. Saviour Southwark	25,570	—	11	6	—	—	—	1	2	—	20	9·8	—	—	—	1	—	—	1	—	—	2	1·0	51	25·0	200
St. George Southwark	60,168	2	16	14	—	6	—	—	13	—	51	11·0	—	15	2	1	—	—	—	—	3	21	4·5	111	24·0	205
Newington	119,358	—	54	38	—	8	—	1	15	—	116	12·7	1	51	1	9	4	—	1	—	3	70	7·6	245	26·8	189
St. Olave Southwark	13,065	—	4	2	—	—	—	—	—	—	6	6·0	—	—	—	—	1	—	—	—	1	2	2·0	21	21·0	185
Bermondsey	83,861	—	22	5	—	10	—	1	14	—	52	8·1	—	19	2	4	—	—	2	—	4	31	4·8	150	23·3	172
Rotherhithe	40,713	—	19	2	—	3	—	—	15	—	39	12·5	—	4	2	1	—	—	—	—	1	8	2·6	66	21·1	182
Lambeth	284,883	1	198	76	—	24	1	2	32	—	334	15·3	—	28	9	13	1	—	4	—	3	58	2·7	355	16·2	116
Battersea	165,130	—	114	57	—	17	1	2	22	—	213	16·8	—	4	1	11	2	—	—	—	3	21	1·7	195	15·4	131
Wandsworth	185,956	1	71	33	—	15	1	—	23	—	144	10·1	—	2	4	5	2	—	4	—	4	20	1·4	166	11·6	115
Camberwell	252,737	7	111	86	—	18	—	—	37	—	259	13·4	1	32	3	16	6	—	2	—	4	62	3·2	343	17·7	120
Greenwich	176,183	5	69	107	—	31	—	1	24	—	237	17·6	—	5	3	20	2	—	6	—	2	36	2·7	231	17·2	129
Lewisham (excluding Penge)	82,410	—	44	17	—	9	—	1	5	—	76	12·0	—	—	3	2	2	—	—	—	1	8	1·3	89	14·1	142
Woolwich...	42,768	—	20	8	—	4	—	—	1	—	33	10·1	—	—	1	1	—	—	—	—	1	3	0·9	50	15·2	99
Lee	38,832	—	19	11	—	1	—	—	1	—	32	10·7	—	—	1	5	—	—	—	—	—	10	3·4	50	16·8	170
Plumstead	61,494	—	18	13	—	4	—	—	6	—	41	8·7	—	3	1	5	—	—	—	—	—	12	2·5	81	17·2	156
Port of London	—	—	—	—	—	2	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 51 cases of membranous croup.

† Including deaths from membranous croup.

end of the three preceding months; the weekly admissions averaged 15, against 57, 27, and 15 in the three preceding months. The prevalence of scarlet fever in London showed a decline during November; this disease was proportionally most prevalent in Chelsea, Hackney, Holborn, Bethnal Green, Whitechapel, Limehouse, Lambeth, and Battersea sanitary areas. The Metropolitan Asylum Hospitals contained 2690 scarlet fever patients at the end of November, against 2435, 2845, and 2727 at the end of the three preceding months; the weekly admissions averaged 304, against 292, 333, and 263 in the three preceding months. The prevalence of diphtheria in London during the month under notice almost corresponded with that in the preceding month; among the various sanitary areas this disease showed the highest proportional prevalence in Fulham, Chelsea, St. Martin-in-the-Fields, Mile End Old Town, Poplar, and Greenwich. There were 672 diphtheria cases under treatment in the Metropolitan Asylum Hospitals at the end of November, against 666, 664, and 661 at the end of the three preceding months; the weekly admissions averaged 98, against 80, 101, and 103 in the three preceding months. The prevalence of enteric fever in London showed a very slight decline from that recorded in the preceding month; this disease was proportionally most prevalent in Chelsea, Hackney, St. Martin-in-the-Fields, Strand, and Holborn sanitary areas. Erysipelas was proportionally most prevalent in St. Giles, St. Luke, Bethnal Green, Whitechapel, and Rotherhithe sanitary areas. The 20 cases of puerperal fever notified during November included 4 in Islington, 2 in Fulham, 2 in Lambeth, and 2 in Battersea sanitary areas.

The mortality statistics in the accompanying table relate to the deaths of persons actually belonging to the various sanitary areas, the deaths occurring in the institutions of London having been distributed among the different sanitary areas in which the patients had previously resided. During the four weeks ending Saturday, Nov. 30th, the deaths of 6131 persons belonging to London were registered, equal to an annual rate of 18·2 per 1000, against 16·9, 16·0, and 17·5 in the three preceding months. The lowest death-rates during November in the various sanitary areas were 11·3 in Hampstead, 11·6 in Wandsworth, 13·4 in St. George Hanover-square, 14·1 in Lewisham, (excluding Penge), 15·2 in Woolwich, 15·4 in Battersea, and 15·8 in Kensington and in St. James Westminster; the highest rates were 23·0 in St. Pancras, 23·3 in Bermondsey, 24·0 in St. George Southwark, 24·7 in Clerkenwell, 25·0 in St. Saviour Southwark, 25·1 in City of London, 26·2 in St. Luke, and 26·8 in Newington. During the four weeks of November 953 deaths were referred to the principal zymotic diseases in London; of these, 377 resulted from measles, 265 from diphtheria, 80 from diarrhœa, 77 from scarlet fever, 77 from enteric fever, 74 from whooping-cough, 2 from small-pox, and 1 from an ill-defined form of fever. These 953 deaths were equal to an annual rate of 2·8 per 1000; the lowest zymotic death-rates were recorded in Hampstead, Stoke Newington, Whitechapel, Limehouse, St. Saviour Southwark, and Woolwich; and the highest rates in St. Pancras, St. Martin-in-the-Fields, Clerkenwell, St. George Southwark, Newington, and Bermondsey sanitary areas. Two fatal cases of small-pox were registered in London during the month under notice, slightly exceeding the corrected average in the corresponding periods of the ten preceding years; of these 2 deaths, 1 belonged to Newington and 1 to Camberwell sanitary areas. The 377 deaths referred to measles were 167 above the corrected average; among the various sanitary areas this disease showed the highest proportional fatality in St. Pancras, Clerkenwell, Bethnal Green, St. George Southwark, Newington, Bermondsey, and Camberwell. The 77 fatal cases of scarlet fever were 31 below the corrected average; this disease showed the highest proportional fatality in St. Pancras, Holborn, Rotherhithe, and Lewisham sanitary areas. The 265 deaths referred to diphtheria were 105 above the corrected average number; among the various sanitary areas this disease was proportionally most fatal in Kensington, Chelsea, Bethnal Green, Poplar, Greenwich, and Lee. The 74 fatal cases of whooping-cough were 64 below the corrected average; this disease showed the highest proportional fatality in Kensington and Hackney sanitary areas. The 77 deaths referred to enteric fever slightly exceeded the corrected average number; among the various sanitary areas the highest proportional fatality of "fever" was recorded in Hackney, Clerkenwell, Poplar, Greenwich, and Plumstead sanitary areas. The 80 fatal cases of diarrhœa were 12 above the corrected average; this disease was proportionally most fatal in St. George Southwark and Bermondsey sanitary areas. In conclusion, it may be stated that the mortality in London during November from these principal zymotic diseases was nearly 13 per cent. above the average.

Infant mortality in London during November, measured by the proportion of deaths under one year of age to registered births, was equal to 140 per 1000, and was slightly below the average. Among the various sanitary areas the lowest rates of infant mortality were recorded in Paddington, St. George Hanover-square, St. James Westminster, Marylebone, Limehouse, and Woolwich; and the highest rates in Westminster, St. Martin-in-the-Fields, Holborn, Clerkenwell, St. Saviour Southwark, and St. George Southwark.

THE SERVICES.

MOVEMENTS OF MEDICAL STAFF.

THE following officers have embarked for a tour of service in India:—Surgeon-Lieutenant-Colonel Miller and Surgeon-Major Kerin. Surgeon-Colonel Maxham has arrived at the Cape and taken over the duties of Principal Medical Officer. Brigade-Surgeon-Lieutenant-Colonel Duke and Surgeon-Captains Manders, Hale, and Hayman have arrived in Ceylon. The following officers have arrived from India on completion of a tour of service:—Surgeon-Lieutenant-Colonel Quill and Surgeon-Majors Carleton and Barrington.

ARMY MEDICAL STAFF.

Surgeon-Major-General James Inkson, M.D., is placed on retired pay.

INDIA AND THE INDIAN MEDICAL SERVICES.

The following appointments are announced:—1st Bombay Grenadiers: Surgeon-Lieutenant Moore to officiate in Medical Charge. 2nd Bombay Lancers: Surgeon-Lieutenant Leumann to officiate in Medical Charge. Surgeon-Captain P. W. O'Gorman, Officiating Civil Surgeon of Midnapur, is appointed to act as Civil Surgeon of Singhbum. Surgeon-Captain B. H. Dean is appointed to do general duty at the Bengal Presidency. Surgeon-Captain J. G. Hojel is appointed to be Resident Surgeon, St. George's Hospital, Bombay.

NAVAL MEDICAL SERVICE.

The following appointments are announced:—Staff-Surgeon T. E. H. Williams to the *Flora*. Surgeons: S. W. Johnson, M.B., to the *Melita;* and H. F. Iliewicz to the *Flora*, and after to the *Pelican*.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain Joseph W. Hodgson, M.D., to be Surgeon-Major. Surgeon-Lieutenant James Taylor, M.D., 6th Volunteer Battalion the Gordon Highlanders, to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Rifle: 1st Volunteer Battalion the Northumberland Fusiliers: Surgeon-Captain W. B. Mackay, M.B., to be Surgeon-Captain. 2nd (Berwickshire) Volunteer Battalion the King's Own Scottish Borderers: Surgeon-Captain R. S. Gibb, M.B., to be Surgeon-Major, and Surgeon-Lieutenant J. L. Wilson, M.B., to be Surgeon-Captain. 2nd Volunteer Battalion the Duke of Cornwall's Light Infantry: Surgeon-Major W. Hammond resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement. 1st Volunteer Battalion the King's Own (Yorkshire Light Infantry): William Henry Hender Bennett, M.B., to be Surgeon-Lieutenant.

THE HEALTH OF THE SOLDIER IN WESTERN EUROPE.

Dr. F. Antony, a French military surgeon, has published in the *Archives de Médecine et de Pharmacie Militaires* (tome xxvi., page 142) some very interesting statistical information regarding sickness and mortality in the various armies of Western Europe. The amelioration that has taken place in the vital condition of the soldier during the last thirty years is most remarkable and far exceeds anything of the kind observable in civil life. Everywhere the figures adduced by the compiler denote improvement; but although it is difficult, if not impossible, to institute a perfectly exact comparison between the several countries on account of the different systems in force, we nevertheless note

with satisfaction that the advance in salubrity is in no case so well marked or so steady as with us. When considering military mortality (in time of peace) from a comparative point of view there are, according to Dr. Antony, two chief factors which the observer must bear in mind: in the first place, the numerical proportion borne by the armies to the total population; and, secondly, the amount of invaliding. France, for instance, keeps up a force equal to that of Germany, whereas the latter country is the more populous by a quarter, and German medical officers are consequently able to exercise greater discrimination in the selection of recruits. This power to pick and choose is better marked in Austria, where the troops are not half as numerous as in France, and better still in England, where scarcely 100,000 men in all are enrolled beneath the colours. The influence of free invaliding on the death-rate is, of course, obvious. Doubtless Dr. Antony's arguments are sound to a certain extent, but as regards England it should not be forgotten that we have no conscription, and that suitable recruits are not easy to find. Of late matters in this respect have somewhat improved, but, especially in the line, there is still difficulty in securing a sufficiency of eligible youths. The following hospital statistics are interesting as far as they go. To render the information complete the number of men treated *à la chambre* should be shown. 1880–90, admissions to hospital per annum per 1000 of strength at beginning and end of decade: France, 612–618; Germany, 1172—897; England, 829—810; Austria, 995—891; Italy, 833—796. Dr. Antony's statistics of death and invaliding are more elaborate and must represent a vast amount of labour on his part. His final remarks on the subject are noteworthy. "What conclusions are to be drawn from this compilation? It is an incontestable fact that the soldier has a threefold better chance of living now than he had thirty years ago, so long, that is, as he remains in the ranks. It is none the less true, however, that eliminations on account of ill-health have gone up in a corresponding ratio, save as regards the English army, where all figures are indicative of continuous regression. For the other nations the results obtained are perhaps favourable, but approbation in their case cannot be unreservedly given."

Table showing Loss by Death and Invaliding in some of the Armies of Western Europe.

Per 1000 per annum.	Died.	Invalided.
France, Home Service, 1862–69	10·10	6·8
,, ,, 1872–79	9·25	12·5
,, ,, 1880–84	8·4	13·5
,, ,, 1885–89	6·3	18·17
Germany, Prussia, 1846–63	9·69	8·4
,, 1873–77	5·7	27·7
,, 1880–89	3·0	31·0
Austria, 1840–50	28·0	—
,, 1850–60	17·5	—
,, 1871–79	11·6	—
,, 1880–91	15·5	—
Italy, 1864–69	16·3	—
,, 1871–80	10·0	13·6
,, 1882–91	7·5	18·3
England, 1860–68	9·52	33·86
,, 1871–80	7·95	22·0
,, 1880–89	6·1	19·58
,, 1890	5·1	16·72
Belgium, 1868–69	12·8	8·5
,, 1876–79	5·8	—
,, 1880–84	4·6	—
,, 1887–91	4·85	14·0 to 17·5
Spain, 1886	13·49	30·0
,, 1891	10·06	28·5

It is impossible to fill up the invaliding column in the case of Austria, because men sent on temporary sick leave are inextricably mixed with those who are permanently disabled. This observation also applies in a measure to Belgium and Italy.

THE ASHANTI EXPEDITION.

There is not very much to chronicle in regard to the forthcoming expedition to Ashanti. Some of the British troops from this country have already arrived at the Gold Coast, and the Special Service Corps, with a large draft of the Army Hospital Corps, some officers and men of the Royal Engineers, and others embarked on Saturday last for Cape Coast Castle, after having been inspected by the Commander-in-Chief. Lord Wolseley, accompanied by several officers of the headquarters staff, Sir William Mackinnon, the Director-General of the Army Medical Department, and others, visited the *Coromandel*, which is understood to be admirably fitted up with every comfort and convenience. Great activity prevails at Cape Coast Castle. Four thousand native carriers selected from various tribes have already started from Prahsu, about eighty miles distant from the base, all stores having, by Sir Francis Scott's order, to be forwarded there. It is understood that arrangements have been, or are being, made for 10,000 native carriers altogether. The 2nd West Yorkshire Regiment, stationed at Gibraltar, have embarked on board the steamer *Manila* for the West Coast of Africa, where the corps joins the Ashanti Expedition. Great care and attention have been bestowed on the details connected with the equipment of the force and upon the military and medical arrangements of the present expedition based upon the experience obtained in the previous operations which took place twenty-two years ago. The total cost of the last expedition was altogether about £900,000. Among the officers who embarked for Ashanti in the *Coromandel* were Surgeon-Lieutenant-Colonel Blennerhassett, Surgeon-Major Wolseley, Surgeons-Captain O'Callaghan, H. A. Cummins, W. C. Beevor, J. F. G. Burke, G. Wilson, and Hilliard, and Surgeon-Lieutenant C. G. Spencer. The *Coromandel* is expected to arrive at Cape Coast Castle on Christmas Day.

The *Army and Navy Gazette* says: "Some seem to regard the present Ashanti expedition as a very insignificant little affair. Now it may or may not be. Certainly there is one enemy to be fought—viz., a very trying and pestilential climate. In the Ashanti War, under Lord Wolseley, the mortality did not cease at the time of the war, for after leaving the country, within a given period of four months, it is put down to 3·14 per cent. of the strength disembarked. So likewise the present expedition will have results after leaving the country as well as during its stay there."

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The sixteenth distribution of prizes of the school took place at a concert held in the Banqueting Hall, Crosby Hall, E.C., on Saturday, Dec. 7th. The prizes were distributed by Lieutenant-General Moncrieff, and the president of the school, Major Andrew Maclure, occupied the chair. Major Maclure, in speaking of the work of the school during the past year, said that the classes generally had been well attended; a large number had obtained proficiency certificates, bringing up the number of officers who had thus qualified for promotion to close upon 200. Officers from the colonies, including Australia and the Cape of Good Hope, had also joined for courses of instruction. A new feature in the work with regard to first aid classes had been the introduction of lectures on nursing and duties in military hospitals. Lieutenant-General Moncrieff, in presenting the prizes, congratulated the team of the London Rifle Brigade on having carried off by the narrow margin of one point the handsome Challenge Bowl presented to the school by Surgeon-Major-General J. B. Hamilton, M.D., late principal medical officer, Home district. Surgeon-Major H. F. Stokes, chief instructor, also spoke and testified to the able support which he had received from the staff of the school. A capital concert terminated the proceedings. The next class for the training of regimental stretcher-bearers will be held at the headquarters of the "Artists" R.V., commencing at 7.30 P.M. on Wednesday, Feb. 5th.

THE ITALIAN FORCE IN ABYSSINIA.

If the accounts of the Italian reverse in Eastern Africa and of the threatening attitude of a very large advancing Abyssinian army be not exaggerated, General Baratieri's force will require to be at once largely reinforced by troops from Italy. The fighting at Ambalagi appears to have been very severe and to have been mainly brought about by that over-confidence which characterised some of our own movements in Egypt and the Soudan. A detached native force advancing under the command of Italian officers was surprised by a vastly superior number of the Shoan army and compelled to retreat. Later telegrams from General Baratieri, it is stated, allege that Abyssinian forces have

invaded the Tigre country and besieged Makalle and Antalo. We have heard nothing of the field medical service now in Abyssinia at the disposal of the Italian force, but it is clear that a number of medical officers, together with hospital stores and equipment, will be required, and these, no doubt, will be sent out with the reinforcements to be despatched by the Italian War Office.

DEATHS IN THE SERVICES.

Surgeon-Colonel Daniel Charles Grose, principal medical officer, North British military district at Edinburgh, on the 7th inst., in his fifty-fifth year. He entered the Army Medical Service in 1864, and in 1865–66 served with the expedition from Aden into the interior of Arabia, was in medical charge of the force at the action of Bir Said, and was present at the subsequent operations. He became a surgeon-major in 1876 and brigade-surgeon in 1890.

THE PASTEUR INSTITUTE FOR INDIA.

Surgeon-Colonel C. Roe, I.M.S., has been appointed honorary secretary of the association for the foundation of a Pasteur Institute in India. It is understood that sufficient funds have been collected to assure the success of the scheme.

Sir William Mackinnon, the Director-General of the Army Medical Service, was recently at Windsor Castle on a visit to the Queen.

On Dec. 3rd 170 invalids arrived at the Royal Victoria Hospital, Netley, from Bombay, *ex* hired transport *Dilwarra*.

Correspondence.

"Audi alteram partem."

"THE CASE OF DR. WIGHT."

To the Editors of THE LANCET.

SIRS,—I was pleased to read your editorial article and also "M.D.'s" letter in THE LANCET of Dec. 7th. I concur entirely with both, and as there appears a possibility of a doubt, Dr. Wight should have had the benefit. Ever since I read the account of the inquest in the daily press of the unfortunate case I have been on the look out for the *post-mortem* report of the injuries, which in my opinion should certainly have been communicated to the medical press, so that the profession might have had an opportunity of forming their own conclusions from a scientific account of the case. No matter how intelligent twelve laymen may be, they are incapable of forming a true opinion from post-mortem details. In this lamentable case it is unfortunate that no evidence was produced for the defence, and if the injury was situated in the posterior vaginal fornix, as stated in your leading article, there is every reason to believe that the rupture was accidental; if the rupture had been lateral, then one could understand how the blade of a forceps would, when carelessly employed, cause the fatal mischief. I take it that very few men have seen such an unfortunate occurrence, and having seen two cases myself I may be pardoned for trespassing on your valuable space. My first case happened in 1878, when I was engaged to attend a multipara whom I had delivered with difficulty some years before. As I had not been paid I said I should require my fee before I went to her again. I heard no more about the case till one morning in September, about 2 A.M., I was called with the message that Dr. C—— required my aid at once. I went, and found my neighbour, who had just succeeded to a practice, had been in attendance some time. She had been in labour several hours, and he had had forceps on and off for two hours, the forceps slipping off each time he tried to bring down the head. I examined her and found an antero-posterior diameter of three inches. I tried the same forceps and then tried my own, but they slipped off. I examined carefully again, and found what seemed to be the head well down, and beyond could feel something like the tip of the shoulder. I went for the perforator and crotchet, and was only away a very short time. On my return I found the head had receded and the fœtus was in the peritoneal cavity. Introducing my hand carefully into the vagina I found it passed through a rent in the posterior fornix or Douglas's pouch, and the uterus was completely separated; I got the feet and succeeded in delivering her in a few minutes. She survived her delivery for thirty-six hours. When did the laceration take place in this case, and who was to blame? We did our best to deliver her, and did not use more force than I used on the previous occasion. The rupture was caused no doubt through trying to bring the head through too narrow a brim, but who would venture on craniotomy before an attempt with the forceps? I feel somewhat strongly, therefore, in Dr. Wight's case that the misfortune which has happened should be put down to criminal neglect when I could understand even the anxiety of such a case causing him to have a dazed appearance. I trust something may be done to lighten the poor man's punishment, because the stigma of being held criminally responsible for what after all may only have been an unavoidable accident must be great in the case of a man who has practised honourably for thirty years.

I am, Sirs, yours faithfully,

Wigan, Dec. 9th, 1895. W. BERRY, F.R.C.S. Irel.

To the Editors of THE LANCET.

SIRS,—Without going into the merits or demerits of this unfortunate case, there is one thing which is not mentioned either in your article or in "M.D.'s" letter—viz., the apparent unfairness of the prosecuting counsel, when opening the case, in drawing the attention of the jury to the fact that the defendant was "more than half an hour" getting the forceps into apposition, thereby implying that such delay was a sign of want of knowledge or κἀδος in the operation. Now it is a well-known fact with obstetricians that in certain cases, especially where the presenting head is a fixture and the pains well-nigh continuous, it is utterly impossible to apply the forceps *cito* and at the same time *tuto et jucunde*, and that the very length of time in applying them may be but a witness of care and of scientific knowledge in the operation.

I am, Sirs, yours faithfully,

W. L'HEUREUX BLENKARNE,
Surgeon to the Leicester Provident Dispensary.

Leicester, Dec. 10th, 1895.

SEQUEL TO A CASE OF TRAUMATIC TETANUS TREATED WITH TETANUS ANTITOXIN.

To the Editors of THE LANCET.

SIRS,—When sending you the notes of my case of traumatic tetanus treated with tetanus antitoxin[1] I had to record that the latest news of the child still mentioned some lameness. This has been since accounted for satisfactorily, though, I confess, unexpectedly, by the removal from the foot of a small triangular piece of china three-eighths of an inch in its longest diameter. The mother of the child writes that "on Friday (Oct. 25th) she complained of the foot being very painful. I examined it and saw a small white thing in the middle of the wound. I tried to take it out with a needle but could not, so put on a poultice of linseed and a little soda, and it took out a small piece of the dish that her foot was cut with at the beginning." As Dr. Neil Fullarton and myself both sought repeatedly with a probe for any foreign body without success, and as the wound had been well poulticed for some days until it assumed a healthy appearance, I was scarcely prepared for this sequel and was, therefore, glad to receive the enclosed letter from Dr. Fullarton.

I am, Sirs, yours faithfully,

Harley-street, W., Dec. 9th, 1895. NESTOR TIRARD.

Dr. Tirard. Blairbeg House, Lamlash, Arran, N.B., Nov. 11th, 1895.

Dear Sir,—I was up Corrie way the other day and looked in to see the little girl, K. W——, who is looking extremely well. No one would ever suppose she had so recently been through such a serious illness judging by her present appearance. You know, of course, about the piece of dish which came out of the wound, and which has apparently been retained under the tendon of the flexor longus pollicis, judging from the part of the wound it came out of, and also from the fact of it only moving out when the child began to use the foot. I am sure you must have been gratified, as I was, with the result of your treatment. I send you this note as I am sure you will be glad to learn of your little patient's complete recovery to health and strength, which she undoubtedly owes to you.

With warmest regards, believe me, yours truly,

NEIL FULLARTON.

[1] THE LANCET, Nov. 2nd, 1895.

THE CAUSE OF GOITRE.

To the Editors of THE LANCET.

SIRS,—I have read with great interest, in THE LANCET of Nov. 9th last, Dr. Gordon Holmes's remarks on the pathogenesis of sporadic goitre. It is curious that, so far as I have read on this subject in the text-books and in the various articles in the medical papers, I can find no reference to the observations of Dr. J. Saint-Leger on the cause of goitre. In his book—"Études sur les Causes de Crétinisme et du Goitre Endémique," published in Paris in 1867—there are some very interesting and carefully worked out observations on the origin of these diseases. He passes in review the various supposed causes and brings forward conclusive evidence against them. He traces the close connexion between goitre and cretinism, and maintains that the number of cretins free from goitre has been greatly exaggerated, pointing out that among cretins there is found a form of goitre which shows very little externally, the swelling of the gland developing laterally and under the muscles; he also adds that *all* cretins labour under embarrassed respiration as if from a mechanical obstruction. I may mention that we found among some of the cases of goitre operated on during my period of residence at the Cumberland Infirmary that the disease showed very little externally, but had grown under the muscles, and in two cases the growth was found embracing the trachea, and the greater part was found posteriorly. As to the cause of goitre, Dr. Saint-Leger maintains that it is found in the drinking water, and after an exhaustive research into the geological formation of the goitrous districts he came to the following conclusions. 1. That endemic goitre coincides with metalliferous soils. 2. That the chief goitre-forming element is sulphide of iron or iron pyrites. This is the most abundant and most frequent element, and the only one which is never absent. 3. That next in order of frequency comes copper pyrites (the double sulphide of copper and iron), and then, but less frequently, the sulphides of lead, arsenic, and antimony.

In support of this contention he brings forward most convincing arguments. It is the small dose of the sulphides frequently repeated that causes the disease. In three mice to which for three months he gave in their food small doses of sulphide and sulphate of iron, he produced very marked swelling of the thyroid, and in others to which were administered other supposed goitre-forming substances no such effect was produced. A very striking instance he quotes from Mr. Clelland's observations:—"In the year 1831 two companies of the 30th Regiment of Native Infantry were placed in garrison at Lohooghal, while two other companies were stationed at Petoragur, a station to the north of Lohoogha having precisely the same altitude and mean temperature as the latter. At the end of three years there was not a single case of goitre at Lohooghal, while at Petoragur there were fifty. The water for the supply of the former station came from the metamorphic clay schist, while that for the latter came from metalliferous limestone containing beds of schist with graphite and iron and copper pyrites."

Another convincing proof brought forward by Dr. Saint-Leger was as follows. Knowing the geological formation of certain districts of France he marked on the map the localities in which there ought to be goitre and then visited them. He found no goitre in the districts where he did not expect to find it, but he did not find goitre in all the places he expected, but in these cases he found that the water-supply was either got from a different formation at a distance or from wells sunk in beds of transported alluvium covering the real geological formation. In all the other districts he found the disease. These observations are very interesting and require more working out in this country. I am at present endeavouring to find out their truth as regards Cumberland and Westmorland, and hope to communicate the results of my research at some future date. Goitre is endemic here, and it is well known that in the mountains of the Pennine range—and, indeed, in other hills in these counties—iron, copper, and lead are found in large quantities, and it would be interesting to find out if these metals are found in other goitrous districts in the country. With regard to Dr. Holmes's remarks on predisposing causes of goitre, my experience here bears out the fact that the disease is most prevalent in females and that it develops generally at puberty, though in some cases in early childhood. I have seen several cases of mother and daughter being affected with the disease. It is interesting to mention, in conclusion, that Paracelsus and other physicians of the sixteenth and seventeenth centuries accused metallic waters of causing the neck to swell, and even mention iron pyrites as a cause of goitre.

I am, Sirs, yours truly,

LOUIS E. STEVENSON, M.B., B.C. Cantab.

Penrith, Nov. 12th, 1895.

"'RETURN' CASES OF SCARLET FEVER."

To the Editors of THE LANCET.

SIRS,—A record of the following history, which occurred in my practice some two years ago, may be of interest in showing that subsequent cases of scarlet fever occurring in a family cannot always be interpreted as "return" cases.

A boy at school here had scarlet fever, and when free from infection, as I considered, he returned to his home in Ireland. He having one sister at home who was young and very delicate, his parents resolved that he should go somewhere in the country before joining the family, for prudential reasons. Within three days of his leaving my care the sister fell ill with scarlet fever, although there had been no communication with the convalescent. Now, had the convalescent returned to his home I should doubtless have inferred that the sister's illness was a "return" case of scarlet fever, whereas I have little doubt that she contracted her scarlet fever by travelling in a tramcar within four days of falling ill. It was known that there was scarlet fever in the town in which she resided. In my opinion some of these "return" cases of scarlet fever are doubtless freshly contracted cases arising from travelling in public conveyances—railway carriages, cabs, and tramcars—which are the most infectious of all places—certainly they cause me great trouble. Within the last six months I have traced two cases to travelling in railway carriages, one while travelling to a football match, the other to a funeral.

I am, Sirs, your obedient servant,

Rugby, Dec. 6th, 1895. CLEMENT DUKES.

"'TUBERCULOUS' *vel* 'TUBERCULAR'?"

To the Editors of THE LANCET.

SIRS,—Among your annotations in THE LANCET of Dec. 7th there is one under the above heading. The difficulty and perplexity therein mentioned have long been recognised, and I have publicly and privately suggested a very simple and, to my mind, perfectly satisfactory solution—viz., the use of the word "nodule" for the representation of an object otherwise capable of being called a small lump, and the correlative "nodular" or "lumpy." As you say, custom has hallowed and made inviolate the noun "tubercle," and I would suggest that the time has now arrived when tubercle, tuberculous, tubercular, &c., should be gracefully yielded up to the power of a specific bacillus, and only used to connote its activity, past or present. The old order changeth, giving place to the new, and I maintain that what was excusable in an anatomist in years gone by, to apply the term "tubercle" to any small lump, cancerous, sarcomatous, or of unknown origin, is now no longer so since an all-powerful bacillus has seized upon it for its own. If my suggestion be accepted confusion cannot arise, for if the bacillus be not actually searched for we can still say "a nodule was found (? tubercular)." About three-fourths of the literature of consumption would never have obscured our eyesight, physically and mentally, had the simple words nodule and nodular but been used in the place of tubercle and tubercular where doubt was in the mind of the writer as to the presence or absence of the bacillus.

I remain, Sirs, yours truly,

Christopher-street, E.C. FRED. J. SMITH.

A CASE OF NYSTAGMUS ARISING FROM AN UNUSUAL CAUSE.

To the Editors of THE LANCET.

SIRS,—On reference to text-books I find the causes of nystagmus, or involuntary oscillation of the eyeballs, to be divided into two classes according to the age at which the symptom manifests itself—namely, in early or in adult life. The causes in early life are congenital cataract, corneal ulcer and atrophy of the choroid; whilst in adults, miner's nystagmus and that occurring in locomotor ataxy are the

usual forms given. In the case in question it was whilst attending one of the children that I first saw the father, who is a gardener, and noticed that he had nystagmus. I inquired whether he had ever been bothered with his eyes and obtained the following history. Up to the age of twenty-two his eyes were perfectly normal. One evening he was stoking the greenhouse fires and some unignited gas must have accumulated, for on opening the stove doors there was a burst of flame, which scorched his hair and face, and from the effects of which he was laid up for a fortnight. On getting about again he found he could not see as well as before on account of the movement of his eyeballs, and his friends all noticed the change in them. He is now forty-three years of age and tells me he can read perfectly both by daylight and artificial light, and that his eyes do not bother him in the least except in bright sunlight, when he becomes rather "dazed." On examination I find he has horizontal nystagmus, that both eyes act together, and that their movements are perfect in all directions. The oscillation still continues, but is reduced to about 120 a minute, when the eyes are extremely turned either inwards or outwards. The corneæ are clear, and no abnormal signs can be seen about either eye. The pupils act well both to light and to accommodation. With the ophthalmoscope I find the lenses transparent and without any signs of opacity. The discs are slightly injected, but otherwise normal. By retinoscopy + 3 corrects the left eye and + 4·5 the right eye. I have not attempted any treatment, not quite seeing what course to follow, as the nystagmus is now of twenty-one years' standing, and the subject is in perfect health and according to himself has "never had a day's illness." With regard to the pathology I am also at a loss, but suggest that changes have taken place in the nerves or nerve endings in the ocular muscles, due to peripheral neuritis caused by the inflammation consequent on the burns received twenty-one years ago.

The course of reasoning I have pursued is as follows. If a child be born blind and continue so, nystagmus generally supervenes because one of the first acquired coördinate actions is that of the harmonious and accurate movements of the muscles of the eyes, whereby the child learns to look at an object, nystagmus being therefore a defect of coördination. Now the mechanism of coördination is: (1) sensory paths for perception and conduction of impressions; (2) receiving central ganglia; and (3) efferent nerves to carry impulses from centres to motor structures. Failure of coördination may arise from defect in any one of these three structures, for in locomotor ataxy we find the change in the sensory structures, in cerebellar disease it is in the central ganglia, whilst in multiple sclerosis the lesion is in the motor paths. Miner's nystagmus, being due to excessive use and straining of the ocular muscles, is an example of lesions in the motor paths. Nystagmus occurring in locomotor ataxy is due to sensory changes. May not the nystagmus in the case under consideration be due to changes in the nerve endings in the muscles, but whether sensory or motor, or both, I cannot say?—I am, Sirs, yours truly,

A. DUNLEY OWEN, M.R.C.S., L.R.C.P. Lond.

Northampton, Dec. 9th, 1895.

*** This case is one of exceptional interest. There are many other affections besides those mentioned by our correspondent with which nystagmus may be associated, as, for example, with errors of refraction, especially high degrees of hypermetropia, with retinitis pigmentosa in albinos, and with disseminated sclerosis of the brain and spinal cord, with hysteria and with lead poisoning. The pathology of the case may of course be that ingeniously suggested by Mr. Dunley Owen, but we should be inclined to give another explanation to the effect that the shock of the explosion caused a small lesion of the choroid or retina at or near the fovea centralis in one or both eyes, and that the amblyopia thus produced led to the oscillation of the globes. Mr. Dunley Owen does not give the distant vision of the patient.—ED. L.

APOTHECARIES' HALL, IRELAND.

To the Editors of THE LANCET.

SIRS,—The Court of the Apothecaries' Hall, Ireland, would call your attention to an observation made in your valuable journal at page 1468 in reference to the petition presented by them to the General Council of Medical Education for the appointment of additional examiners in surgery, in which it is stated "Irish opinion was much divided on the Council." The facts are as follows:—There are in all seven Irish representatives. Two recorded their votes for the Hall. One spoke most strongly in favour of the request, but was urgently obliged to leave before voting. Two other Irish members of the Council were absent, but wrote letters expressing their opinions that the examiners ought to be granted. The two Irish votes given against the Hall were by two Fellows of the Royal College of Physicians, Ireland.

I am, Sirs, faithfully yours,

ROBERT MONTGOMERY, M.R.C.S., Secretary.

Mary-street, Dublin, Dec. 9th, 1895.

*** Our account and Mr. Robert Montgomery's are in accord.—ED. L.

MIDWIFERY TRAINING FOR STUDENTS.

To the Editors of THE LANCET.

SIRS,—My attention has been drawn to the fact that in your report of the proceedings of the General Medical Council[1] I am represented as saying that the Council have recommended that every student should be required to attend three months' practice in a lying-in hospital and conduct twelve cases of delivery under the direct supervision of a registered practitioner. The recommendation itself which I quoted is to the effect that either attendance at a lying-in hospital *or* presence at twelve midwifery cases should be required, and it is only stipulated three of the twelve should have been conducted personally under the direct supervision of a registered practitioner.

I am, Sirs, yours truly,

Mosley-street, Manchester, Dec. 9th, 1895. D. J. LEECH.

"THE ADMISSION OF WOMEN TO THE ROYAL COLLEGES OF PHYSICIANS OF LONDON AND SURGEONS OF ENGLAND."

To the Editors of THE LANCET.

SIRS,—Having to-day seen, for the first time, a letter signed "Albert Morton" in your issue of Nov. 16th, on the "Admission of Women to the Royal Colleges of Physicians of London and Surgeons of England," I beg you to allow me, though somewhat late, to comment on one passage contained in it, for an assertion that goes uncontradicted is sometimes supposed to be admitted. The paragraph is as follows:

"Dr. West justly says: 'What had women done for midwifery, which for a century and a half was entirely in their hands?' I would go a great deal further, and say that the modern medical women are doing more to degrade and lower the standard of the profession than any body of medical men have ever done, for they are at the present time seeking to attend midwifery for a fee of 5*s.*, and for aught I know for even less than that. Does this show that there is any great and growing demand for the services of medical women even for members of their own sex?"

Now is Mr. Morton sure of the accuracy of his *facts?* It is always difficult to prove a negative, but I believe if anyone took the trouble to inquire he would find that no medical woman in practice in England has ever taken less than a guinea as her minimum fee for a midwifery case. Mr. Morton's mistake is probably founded on the fact that in certain maternities officered by medical women, to which a system of training for women students is attached, there exists a rule requiring the out-patients to pay 5*s.* *to the funds of the hospital* on registering their name for attendance, instead of receiving cards entitling them to be attended free, as is the usage of those hospitals in connexion with which men students undertake similar work. The object of the rule was partly to avoid pauperising a new district, partly to limit the number of cases undertaken, as the supply of women students is also limited. The sum of 5*s.* was fixed upon in the belief that no one could possibly mistake it for a doctor's fee. It may or may not have been judicious to adopt this change of method, but at any rate the question involved is not "Do women doctors degrade the profession by taking lower fees than men?" but do they degrade it by insisting that even students' work, when supervised by fully qualified doctors, should be to

[1] THE LANCET, Dec. 7th, 1895, p. 1474.

some extent paid for instead of given without any payment at all?

I am, Sirs, yours sincerely,

MARION RITCHIE,
Hon. Sec. of Clapham Maternity Hospital and St. John's Maternity, Battersea.

Dec. 10th, 1895.

"SHOULDER BRACES."

To the Editors of THE LANCET.

SIRS,—Some years ago[1] I protested against a well-known surgeon recommending a new form of shoulder strap for stooping, &c. In THE LANCET of Nov. 23rd I find you have given, most probably inadvertently, a paragraph describing still another form of shoulder brace under the description of ——'s "Anti-stoop." The trade in these useless straps must be enormous to judge from the profuse way in which they are being advertised, just as if they were "cure-all" pills. For many years I have taught that shoulder straps do far more harm than good; employing them tends to develop the muscles which draw the scapulæ forwards, so that when the straps are left off the sufferer is more round-shouldered than ever. Allow me to quote the opinion of the late John Shaw of the Middlesex Hospital, one of the most clear-headed writers on orthopædic surgery I have come across. He says in his book:[2]

"The effect which the instrument (shoulder-brace or common back collar) produces in ordinary cases may be easily comprehended. If the shoulder-blades be brought close to the spine by the straps of the brace and kept constantly so, there can be no use for the several strong muscles which pass from the spine to the shoulder-blades. They must consequently waste and become nearly useless, while those on the forepart of the chest, being excited to resist the straps, will become increased in power, and hence, when the strain is taken off, not only will the shoulders fall forward as in a delicate person, but the muscles on the forepart of the chest will predominate over those by which the shoulder-blades should be held back and pull the shoulders forwards."

I do not think any impartial surgeon would controvert John Shaw's sensible remarks written seventy years ago.

I am, Sirs, yours faithfully,

Queen Anne-street, W., Nov. 25th, 1895. BERNARD ROTH.

"THE WIDOWS OF MEDICAL MEN."

To the Editors of THE LANCET.

SIRS,—I have read the article on "The Widows of Medical Men" in THE LANCET of Dec. 7th, and beg to submit the subjoined statement. Like most of the licensed houses and registered hospitals—of which it is one—the Holloway Sanatorium receives voluntary boarders, but it does not lay itself out for them, only 37 of its 380 inmates residing as boarders at St. Ann's Heath or at the Brighton branch. Of these 37 boarders some are without means and one on the free list, others are unfitted for home care, and only a small proportion could be available for boarding with doctor's widows. In 1894 the average weekly cost of each inmate was £2 1*s.* 10*d.*, the average weekly payment now made by each boarder is only £1 11*s.* 5*d.*, which in some cases includes clothing, seaside trip, and other extras. The Holloway Sanatorium boarders are of no pecuniary advantage to the hospital, nor would they be so to G.B.R. and others like herself. The sanatorium can only accommodate 400 inmates: 279 patients and boarders were admitted in 1894, and 267 were discharged. Many of those discharged were placed, on my recommendation, in private care. If G.B.R. is a suitable person I may be able to help her.

I am, Sirs, yours faithfully,

S. R. PHILIPPS, Medical Superintendent.

St. Ann's Heath, Virginia Water, Dec. 11th, 1895.

"THE DEGRADATION OF MEDICAL PRACTICE."

To the Editors of THE LANCET.

SIRS,—Whilst endorsing on the whole your leading article on "The Degradation of Medical Practice by Commercial Companies,"[1] it must not be lost sight of that these insurance and medical societies (vulgarly called "death and the doctor" clubs) are by no means the only offenders against the well-being and honest independence of the medical profession. Take, for instance, the older friendly societies—e.g., Oddfellows, Foresters, &c.: these originally were, as they still are in some parts of the country, for the "brethren" only, but of late years the wives and children have been admitted as "dispensary" members of such societies, and that, too, without any medical examination as to their fitness to become members. This has been doubly hard on the medical profession, as formerly such wives and children were one's private patients, and the members themselves gave one very little trouble, for, as a general rule, it is an exception for a man to suffer from hysterical and fanciful ailments like a woman, or to be subject to "catching complaints" like a child, and of this nature is a large percentage of the cases which take up a medical man's time with his "dispensary" work, whether it be that of a (so-called) provident dispensary or of the "dispensary" members of the older friendly societies. I have used the words "hysterical" and "fanciful" in no invidious sense, it being self-evident that man, being out and about at his daily work and thus having more change of scene, has less time for introspection, a fruitful source of hysteria, &c., to which woman is more prone by reason of her more circumscribed environment and from the more monotonous duties of the home, which confine her so much indoors. "Man for the field, and woman for the hearth," as Tennyson has it.

I have the fortune (or misfortune?) to practise in one of the most club-ridden towns in England, so much so that there is scarcely a general practitioner in it who is not a "club doctor" of some sort or kind, even those living in the most aristocratic parts of the town not disdaining such medical—I should say pecuniary—aid to their practices, and quite half the number of practitioners are dispensary medical officers. This is, perhaps, scarcely to be wondered at when it is stated that the especial difficulty in this town is that, on the one hand, there is such a large preponderance of the artisan class of population, and, on the other hand, the number of fresh medical men starting in practice steadily increases out of all proportion to the monetary value of the population. This is altogether a most unsatisfactory state of things, and if the well-being and *amour propre* of the medical profession are to be in any way improved, or even retained, some *modus vivendi* must be arrived at. One way would be the extension of the dispensary system, only with a sliding scale of payment for members, to be arranged according to their income or to the rental of their houses. Then, again, all dispensary committees should consist either altogether of the medical officers themselves or they should have a preponderating voice in the management. By these means would be reduced to a minimum that most crying abuse of most dispensaries and clubs—viz., the want of care that generally characterises them in refusing to admit as members those who are in a position either to be private patients or at any rate to pay a much larger capitation fee than they do under the present *régime*.

I remain, Sirs, yours faithfully,

Leicester, Dec. 4th, 1895. A LEICESTER PRACTITIONER.

"SPECIALISM IN MEDICINE."

To the Editors of THE LANCET.

SIRS,—It is in accordance with the best traditions of THE LANCET that grievances in the profession should be freely discussed in its columns. No one in his day did more yeoman service to the profession than the level-headed, hard-hitting Founder of your journal, and the name of the one-time Doctor-Member for Finsbury and Doctor-Coroner for Middlesex should ever be remembered with respect, especially by the general practitioner of medicine. It may be questioned, however, whether it is altogether wise that the internecine misunderstandings of the profession should be so constantly dragged before the public to the amusement of the cynic and the indifferent, and to the pain of all who respect the interests and dignity of the profession. One of the most distinguished consultants of the day, himself for long a general practitioner, once remarked to the writer that in throwing mud at the profession one inevitably besmirched oneself. When a wrangle degenerates into the pot calling the kettle black we know that argument and reason have been

[1] New York Medical Journal, Nov. 3rd, 1888: A Note on the Uselessness and Harmfulness of Shoulder Straps, Shoulder Braces, and hoc genus omne for Round Shoulders, &c.

[2] Further Observations on the Lateral or Serpentine Curvature of the Spine. London, 1825.

[1] THE LANCET, Nov. 30th, 1895, p. 1375.

abandoned, and temper and abuse are in the ascendant. The grievance of the general practitioner used to be that the specialist took work from him, and more recently he seems to have discovered that he robs the public. Although, no doubt, particular instances are thus indignantly and anonymously pointed at, the impression conveyed to those not fully conversant with the circumstances is that the charge is a general one, and a profession second to none in honourable distinction is thus lowered in the eyes of the public. The secret of these misunderstandings seems to be that the altered conditions of the profession by the mere force of evolution are not sufficiently taken into account. The hard-and-fast line between the consultant and the private practitioner no longer exists. Let us free our minds from cant and recognise an increasingly palpable fact. The "consultant" has in no way degenerated from his gold-headed stick prototype, but the "visiting apothecary" of the old school is as extinct as the dodo. I do not speak of that stratum in the profession which sells what brains it has for sixpence and throws in the physic, but of the physician or surgeon in private practice. A natural consequence of the improved education and status of the general practitioner is that the purely consultant opportunities of the consultant have been very materially diminished. Is there, then, still to be a class of consultants? And if so, how are they to come into being? In the pre-Napoleonic French army a man required to have at least four generations of ennobled ancestors before he could become a candidate for commissioned rank. Is it to be required of the budding consultant of the twentieth century that he should be born in the purple or set out in life with a competent income? If not, how is he to live? Only a very limited number of men can become attached to teaching hospitals, and thus trust to the future good offices of past students; while without the material which a hospital affords no one can become worth consulting in any department except one—namely, obstetrics, in which many general practitioners are quite as much specialists as those who pose as such. This does not apply to gynæcology. Those, then, who have not assured them a former-pupil *clientèle*, and also are in a position to conscientiously regard their advice as worth having in consultation, must give evidence of it by publication—that is, by appeal to a larger professional public than that of a single school. Now, a man cannot have a consulting reputation with the profession and no reputation with the public, and if the public in the exercise of their liberty of action consult such a one *unintroduced* by a fellow practitioner, what is the consultant's duty: to shut the door in the face of this public and starve, or to practise his profession and put on weight? It is not difficult to choose between these alternatives, and no one hesitates to choose the latter unless he finds it to his advantage to do so. This situation, however, necessarily leads to friction, and how is this to be avoided? In my opinion, by ceasing to emphasise a distinction between the rank and file of the profession which is being gradually but certainly obliterated; by throwing down artificial barriers to the development of the special practitioner from the general practitioner; and by impressing the meanest member in the ranks of the profession with the belief that, like the post-Napoleonic private soldier, he potentially carries a field-marshal's baton in his knapsack. Given a fair field and no favour, it will only be a very ill-conditioned person who can object to the natural consequences of the ensuing contest. I have ventured, Sirs, to express my convictions so fully as I have had some opportunity of studying by experience both sides of the question.—I am, Sirs, yours faithfully,

Dec. 10th, 1895. IN TOTO PARS.

"THE PRIMARY EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND."

To the Editors of THE LANCET.

SIRS,—In Professor Fawcett's letter on this subject in THE LANCET of Nov. 23rd he makes a misleading statement when he says that two hours are devoted to Practical Anatomy at the London University examination. The actual facts are these. The candidates are each given a part to dissect for two hours, but of this two hours a quarter of an hour is spent in a *viva-voce* on bones. At the end of this time the candidates are taken to another room, whence they go in turn to another *viva-voce* in soft parts. As far as a candidate can judge, the dissection is of no use, as any man with a little skill in dissecting and less anatomical knowledge could easily perform the task. Conversation is free and unchecked all the time. As you say in your annotation, the London examination is much more severe and thorough than that of the Conjoint Board, but I do not think it is fairer to the student. How can a man do himself justice after two hours' dissecting, and perhaps another two hours' waiting in a bare and dismal room, without recreation or refreshment of any kind, and most likely in a state of extreme nervousness? Then, when he is thoroughly exhausted in mind and body, he is questioned minutely on various regions of the body. This is no imaginary picture—I speak from bitter experience. As far as a candidate can judge the time *is* limited, as every quarter of an hour a bell rings and a fresh batch of candidates takes the place of the old ones. As regards the results of the Conjoint Examinations Professor Fawcett well describes them as "startling." It is a well-recognised fact in provincial schools that it is impossible to foretell who will pass. I have known very able men, who have passed examinations quite as hard at their own universities, who have been ploughed in one or more subjects at the Conjoint examination, much to the disgust of themselves and friends.

I am, Sirs, yours faithfully,

Nov. 25th, 1895. F. S. J.

THE BATTLE OF THE CLUBS.—XIII.[1]

(FROM OUR SPECIAL COMMISSIONER.)

(*Continued from p. 1460.*)

THE ROYAL VICTORIA DISPENSARY AT NORTHAMPTON.

NORTHAMPTON is distinguished among all other towns by possessing one of the largest and, in a way, one of the most successful provident dispensaries of England. Here, if anywhere, the question of club practice has been fully discussed, though it must be confessed the result is far from satisfactory. To judge from printed reports and the rules laid down there is little to complain about; but to judge from the conversations of the junior practitioners in the town the complaints are numerous and a very bitter feeling exists. The actual position of affairs can, however, only be rendered intelligible by, at least, a brief historical retrospect. The Royal Victoria Dispensary was founded in 1845 to commemorate the visit of Her Majesty the Queen to Northampton. A sum of close upon £1000 was then raised by donations; thus, in its initiation the institution was distinctly a charity. At the cost of £800 a building was purchased, and another £200 were spent to convert this house into a dispensary. Some persons then urged that medical aid should be given gratuitously to those who were too poor to join the benefit societies and the sick clubs of the town. Others maintained that this class was already well provided for by the tickets which subscribers to the General Infirmary were able to give away and by the Poor-law Union. Then it was pointed out that many respectable working men felt degraded by having to beg for infirmary tickets; that the loss of time in getting these tickets sometimes entailed great aggravation of illness or even loss of life. Again, it was stated that the wives of working men were only in one or two instances able to obtain from benefit clubs the attendance, during their confinement, of competent medical men. For these various reasons it was decided to work the institution on provident principles—that is, to make the members subscribe. Mr. John Becke, solicitor, was appointed honorary secretary, and has been throughout the most active worker in the organisation of this great institution. In several pamphlets, speeches, and documents he has defended the institution; and, in answer to the objection that it might injure the interests of the medical profession, he has expressed his

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York.

doubts that such was the case, but has added that if these interests were opposed to the well-being of a large number of the poor the interests of a higher and richer but less numerous body must give place to those of the poorer. Mr. Becke, however, and others also, contend that medical men were rarely paid by the poor they attended, and that the medical officers of the Poor-law boards received very inadequate stipends. On the other hand, by the provident system medical men would be ensured payment, and poor families would not be ruined by serious illnesses. Then diseases were aggravated and preventable deaths occasioned because many people postponed seeking medical advice till a great emergency arose. They resorted to the dispensing druggist, the advice of some friend, or to quack medicines, rather than incur the cost of proper medical attendance. Members of a provident institution could, on the contrary, and without extra cost to themselves, obtain advice early, and thus the evil might be nipped in the bud. This, also, was very advantageous to the community at large in cases of infectious disease, as there would be a better prospect of taking the necessary precautions in time to prevent the disease spreading. For these various reasons the first rule was worded as follows: "The object of this institution is to enable the working class to ensure for themselves and their families efficient medical advice and medicine during illness by their own small periodical payments, with the assistance of contributions from the more opulent. The free members shall consist of working persons and servants, their wives and children, not receiving parish relief, and being unable to pay for medical advice in the usual manner." The payment used to be 2*d.* a week for a family, 1*d.* a week for persons above and ½*d.* for those under fourteen years. Now the weekly charge is 3*d.* for families and 1½*d.* for persons above and 1*d.* for persons below fourteen years. Domestic servants pay 5*s.* a year. The fee for confinements is 10*s.*

In a pamphlet giving a history of this institution Mr. Becke relates that there was much discussion as to the number of medical men to be appointed. "The late Mr. Smith of Southam, whose opinion was certainly entitled to great respect, thought it ought to be thrown open to every medical practitioner in the town who wished to join it. I and others believed that by thus dividing responsibility we should greatly diminish the efficiency of the medical staff, that some would join simply because they did not wish to see their names omitted, but to whom the remuneration would not be an object and all labour distasteful; that if the number of officers was limited and the appointments subject to competition, only those would seek for the appointments who were anxious to obtain them and who were ready to do the work." These arguments were met by a sort of compromise, and six medical officers were elected; but in the first year one and in the second year two of them resigned. This confirmed Mr. Becke in the opinion that the number of medical men to be engaged should not be more than the institution could afford to remunerate adequately. All those who worked for the institution should make good incomes out of the work, and this end has certainly been well realised, so well, indeed, that it has caused strong dissatisfaction among the other practitioners. That the compromise described above should have proved a failure was very natural, for it could not satisfy either party. It had all the disadvantage of creating a privilege, but the privilege when obtained was not worth having. The fairest method would have been to throw the dispensary open to any fully qualified practitioner who chose to enrol himself as one of its medical officers. It would then be no special privilege or honour to be included in the list of medical officers, so that it is difficult to see why a medical man should enrol himself if he did not mean to attend the patients. But even if this had occurred in one or two instances the patients would very soon have found out those practitioners who had not their hearts in the work. A little experience would have shown who were the medical officers to whom this club practice was of consequence and who were prepared to give it the necessary time and attention. Young and energetic men would then have had a fair chance of coming to the front, and could not complain that a privileged monopoly has been created. It is true that in those days it was not foreseen that the institution would grow to its present size and importance. There are now 7751 paying members and families, and this I was assured may be taken to represent more than 20,000 persons who are entitled to receive medical aid from the Royal Victoria Dispensary. The income for the year 1894 was, for readmission fees, fines, and cards, £384 7*s.* 9*d.* The subscriptions of the free members amounted to £3184 16*s.* 4*d.*, and the midwifery fees to £152 2*s.* 6*d.* Altogether the total payments made by free members amounted to £3596 10*s.* Out of this sum, £2682 14*s.* 3*d.* was paid to the five medical officers who are now attached to the dispensary. What remained was for the most part devoted to defraying the working expenses, purchasing drugs, &c. I have heard no complaint that profit is made out of the medical men.

The friends of the institution argue that it has rendered a great service to the medical profession, as otherwise the profession would never have received the £2682 which the institution has collected and paid over to its medical officers. The medical men who are opposed to the institution urge that a portion of this money is obtained from persons who can well afford to pay proper fees, and that a class of privileged medical men have been created who receive large incomes in exchange for no service, inasmuch as they pay a much smaller sum than they receive to their assistants, who do all, or nearly all, the work. Is it right that more than £1000 a year should be paid to a prominent medical man who does not do the work but devotes himself to a lucrative and extensive private practice, consigning the club patients to his two assistants? These assistants, though duly qualified, certainly do not cost their employer anything like the sum he received from the Royal Victoria Dispensary. I would haste to add that the medical officer in question enjoys the highest reputation, is excessively popular throughout the town, and that not a word has been uttered against him. But a principle of club management is at stake which it should be possible to discuss without casting the slightest reflection on the high honour and unimpeachable reputation of an individual or individuals concerned. The question is simply whether it would not be better to divide the £1000 or more paid annually to one single medical officer, who cannot, and does not, see the patients, among four or five junior practitioners, to whom it would be a Godsend, and who have all the time necessary to devote themselves personally to the patients. Then, again, could not the members of the institution protest that they pay too much? The experience of Northampton shows that it is possible for one single medical officer to derive from these subscriptions more than £1000 a year and get the work done by two assistants for less than £500 a year, thus pocketing, as middleman, at least 50 per cent. of the sum paid by the subscribers. In the face of these figures, which are available to all, why should not the members of the dispensary propose to reduce their subscriptions by one-half, and offer £250 a year to each of the two assistants who are really doing all the work? Several medical men at Northampton were strongly of opinion that it was not right for medical officers to receive large incomes from what was partly a charity and then farm out the work to assistants. The charitable donations, it is true, have singularly fallen off. They only amounted to £91 last year, but they have been much more considerable in times past, and the dispensary itself was started with the £1000 collected as charity money. It is not generally supposed that large incomes are to be made out of such benevolent institutions; and it can be urged that the benevolence of such institutions would be twofold if they not only provided medical aid to the poor, but also a better opportunity for young and rising practitioners to gain experience and the means of existence.

There next comes the wage limit question. In this respect the Royal Victoria Dispensary is head and shoulders above the friendly societies and the medical aid commercial companies, because its authorities do most emphatically recognise the necessity of a wage limit. The rule says that members shall consist of "working persons" who are "unable to pay for medical advice in the usual manner"; and that those who wish to become members "shall leave particulars as to his or her name, age, residence, and occupation at the dispensary." Mr. Charles Becke, who is now acting in his father's stead as honorary secretary, informed me that the committee of management meet every Friday evening and are open to receive any complaints, and would investigate at once any case where a person was receiving medical aid when he could afford to pay the usual fees. They were happy to receive information on such points from any source. When such persons were discovered they were made to leave the institution as recipients of medical relief,

but were asked to subscribe as donors and patrons. The committee also visited candidates to see that they were not too well off to become members; but the best proof of their sincerity in this matter could be found in their refusal to amalgamate with the friendly societies. Some years ago, before the friendly societies and benefit clubs federated together so as to establish the dispensary of their own now located in Sheep-street, they proposed that the Royal Victoria Dispensary should take the matter in hand. This was a brilliant offer, for it would have brought in many thousand members. Nevertheless, it was refused because, on inquiry, it was proved that many of the members of the friendly societies were not artisans and working men. It is, as already shown, against the rules of the Royal Victoria Dispensary to admit middle-class persons. Yet in the early history of this institution the difficulty of drawing a hard-and-fast line was keenly felt, consequently the following by-law was adopted: "That it is the opinion of this committee that all artisans and labourers, working as journeymen, should be considered as proper persons to be admitted without reference to the rate of wages which they may be receiving; and that the circumstance of the wives of any of them keeping a shop (excepting beer-shops or public-houses) shall not operate as a disqualification, but that no person filling the situation of a foreman or earning his living solely by keeping a shop should be admitted, it being also understood that no widow or single woman keeping a shop shall be considered as included in the disqualification." Mr. Becke recognises that objections can be made to this rule. Many artisans earn quite enough to pay for medical advice, but it is difficult to minutely examine the condition of a family, and a man with high wages but a sickly wife or relatives to support may be very hard pressed. The matter must be left to the discretion of the committee and for the medical officers to report if they find anyone in good circumstances claiming medical aid. Taken altogether, these rules show that there is the desire to prevent abuses, but has the effort been successful? The medical officers of the Royal Victoria Dispensary on whom I called recognised that there might be some abuses; but, if so, they were in any case contrary to the rules. They also pleaded there were abuses in all institutions, and one of the medical officers pointed to a drawer which he declared was full of the documentary evidence he had accumulated setting forth the abuses prevalent at hospitals. These medical officers were also under the impression that, whatever fault might be found with the Royal Victoria Dispensary, there were far greater abuses at the dispensary set up by the friendly societies. One medical man thought that not only were persons possessing good incomes receiving medical aid from the friendly societies, but sometimes the medical man was cheated by patients turning up for whom he had never been paid. This occurred to him at least three times in the course of a year when he was a club officer. On taking the patient's card and comparing it with the list given him by the club or friendly society, he would find that the patient was not on his list. The patient had paid his subscription, but the medical officer had not been credited with the amount.

On visiting several practitioners who were not connected with the Royal Victoria Dispensary, I found that their view of this institution was far less favourable. After denouncing the Royal Victoria Dispensary as a monopoly worked by assistants, they pertinently inquired why, if the wage limit was so strictly applied, so few persons were refused admittance during the course of the year. When I remarked that, in any case, there were abuses with regard to the wage limit at the dispensary of the friendly societies, a practitioner with whom I was speaking replied that he more frequently came across abuse of the Royal Victoria Dispensary. The latter had an altogether higher class of patients; the friendly societies came next; and the lowest class of all were those recruited by speculating financial companies who threw in medical aid as a bait for securing life insurances. From the window of his surgery, overlooking the villadom of Northampton, he pointed out a row of pleasant houses in which he declared many members of the Royal Victoria Dispensary lived. Personally, he was acquainted with a member of this dispensary who was a greengrocer who had retired from business, and who, when not satisfied with the advice obtained from the dispensary's medical officer, very freely gave guinea fees to a consulting physician. He knew also a fishmonger and poulterer who belonged to the dispensary, and he attended an inebriate tradesman who had not been compelled to resign his membership. This man did not like to call the medical officer of the dispensary when he was suffering from the consequences of his insobriety, and then readily gave a 3*s*. 6*d*. fee, to say nothing of the money he squandered in drink. Yet, in spite of the rule that tradesmen are not eligible, and in spite of the wage limit, this man was kept on the books of the Royal Victoria Dispensary. He considered that the dispensary greatly injured the prospects of private practitioners, not merely by failing to apply their own rules and wage limit, but by their readiness to attend from beginning to end any case of illness for 6*s*. 2*d*. The rule is that, if a person is ill and wants to join the dispensary, he must pay 1*s*. for a month's subscription, 2*d*. for his card, and a 5*s*. entrance fee—total, 6*s*. 2*d*. Thus even the improvident, who have not joined the dispensary when in good health, can for this comparatively small sum avoid calling in a private practitioner. This constitutes a terrible competition. People of restricted means, who call in a medical man, invariably find some neighbour who reproaches them for needless expenditure, since, they urge, all that was necessary could have been obtained from the dispensary for 6*s*. 2*d*.

Such are the main arguments brought forward on both sides by the friends and foes of this great institution. I have only one fact to add. According to the printed report 73,811 consultations were given during the year 1894. As the payment of the five medical officers who, with their assistants, did this work amounted to £2682 14*s*. 3*d*., this gives an average of over 8*d*. per consultation. I have not yet met with another similar institution which paid its medical officers anything like so high an average per patient seen.

Northampton, December, 1895.

(To be continued.)

ACTION OF THE NORFOLK AND NORWICH MEDICO-CHIRURGICAL ASSOCIATION.

Everywhere we note a determined intent on the part of medical men to withstand the encroachments of the clubs and to promote social and professional intercourse as much as improve pecuniary status by combining for purposes of general protection and co-operation. We welcome these manifestations, for in many cases—of which our articles under the heading of "The Battle of the Clubs" have detailed several—the remedy for existent evil is in the hands of the local profession, if they will seek it in mutual goodwill and apply it with solid firmness.

The position of medical men holding appointments under certain societies has been under the consideration of the Norfolk and Norwich Medico-Chirurgical Society, a body of 120 gentlemen, and the members present at the last monthly meeting, which was held on Dec. 3rd, were unanimous in their opinion that some step should be taken to discourage the canvassing and touting for patients by agents representing clubs, and a resolution to this effect was passed. As an outcome of this resolution the following circular letter was issued by Dr. Thomas J. Compton, the hon. sec. of the society, to the members in his official capacity:

"Heigham Hall, Norwich, Dec. 4th, 1895.

"Dear Sir,—At a fully attended meeting of the society, held at the Norfolk and Norwich Hospital on Dec. 3rd, the report of the Council in reply to Mr. Belding's question: 'Are the medical officers of the Liverpool Victoria Friendly Society included in the strictures passed by the Norfolk and Norwich Medico-Chirurgical Society on medical men holding medical aid appointments?' was received and adopted, and the members were unanimously of opinion that the Liverpool Victoria Legal Friendly Society comes within the meaning of Law VI. 'as unbecoming and unprofessional for any member of the profession to lend his name or to associate himself in any way with such a society'; and it was resolved that the decision of the members should be made known, at an early date, to each member of the society by circular. Law VI. reads as follows:—

> VI.—Any registered medical practitioner who shall be adjudged guilty of and persist in unprofessional conduct, as defined by the code of rules adopted by this society, shall be ineligible to be a member of this society.

"The rules adopted by the society are those formulated by Dr. Styrap, with clause appended with regard to Medical Aid Associations, defined as associations formed as trade speculations, carried on by lay proprietors for the purposes of deriving pecuniary profits from the earnings of members of the profession, and pushed by means of advertisement; or by the employment of paid canvassers who tout and solicit the patients of other practitioners; and that it be deemed unbecoming and unprofessional for any member of the profession to lend his name or to associate himself in any way with such societies or clubs.

"Yours faithfully,

"THOMAS J. COMPTON, Hon. Sec."

Rule VI., which is quoted in the circular letter, has been recently passed as one of the laws of the society in the hope that the medical officers of the associations therein described

may recognise the possible ill that may accrue to the profession by lending their assistance to such institutions; and already we understand that several members have signified their intention of relinquishing all connexion with clubs which derive pecuniary profits from the earnings of the profession. The members of the Norfolk and Norwich Medico-Chirurgical Society, in taking this action, fully recognise the necessity of medical aid being easily procurable for those who are unable to pay the usual medical fees, and it is their intention to organise at once a scheme under which this object can be attained, while the medical men remain their own masters. It only remains for us to express our warm appreciation of the action of the society, and our conviction that its results must be satisfactory. Success is assured from the first if the local medical men stand by each other in their intent to help the poor.

We have also received from the Medico-Ethical Association of Fermanagh a copy of their new rules and code of ethics. Upon these we shall comment next week, space to-day only permitting us to congratulate those instrumental in welding together the practitioners of the neighbourhood in the manner indicated by the formation of the association.

THE ASHANTI EXPEDITION.

(FROM OUR SPECIAL WAR CORRESPONDENT.)

I AM sure you will be much interested to learn that we have travelled so far safely, and, what is more satisfactory, that the contingent and all on board our ship are quite well.

On leaving Liverpool we had a strong north-north-west wind, very cold at times, and experienced a nasty rough sea till we were off Ushant. The wind, however, decreased, and sea moderated considerably after leaving this point. Three days after quitting England we enjoyed the luxury of a calm day, which was seized upon as an opportunity to clear up and shake down a bit after the severe dressing we had received; but the brief respite was soon followed by a strong southerly headwind, which, by driving up a nasty, topping cross sea, caused serious discomfort to all on or below decks. Much to the relief of all, the weather toned down on Nov. 29th and proved a great comfort to the sea-sick folk, so much so as to permit even the greatest sufferers from *mal de mer* reappearing in their seats at the dining table. The colonel commanding has now decided to disembark the expedition at Cape Coast Castle instead of Accra, in consequence of the surf being very bad at the latter place. I would also say that, so far as I can ascertain by report, verified by personal inspection, the food served out to the men so far is satisfactory, ample in quantity as well as excellent in quality. The water is much discoloured by iron oxide, in consequence of the bad shakings the iron receptacles have received during the rough weather, and was looked upon by Tommy Atkins as something very bad and likely to produce fever; but after obtaining advice and being satisfied that the fluid was quite pure enough for drinking purposes the soldiers have taken kindly to their allowance ever since.

The day's runs were as follows: Nov. 24th, 244 miles; Nov. 26th, 235 miles; Nov. 27th, 175 miles; Nov. 28th, 198 miles; Nov. 29th, 248 miles; Nov. 30th, 244 miles.

SS. *Bathurst*, at sea, nearing Grand Canary, Nov. 30th, 1895.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Recent Assizes.

MR. JUSTICE COLLINS concluded, on the 5th inst., an assize which will be memorable for the number and gravity of the cases tried. Four prisoners are now in H.M. Prison, Walton, under sentence of death, the juries having convicted each of wilful murder. In addition to these, two other prisoners were sentenced to fourteen and twelve years' penal servitude respectively for manslaughter. In the former case the grand jury ignored the bill for murder, but found a true one for manslaughter. The prisoner pleaded guilty; he was a labourer who had killed his wife under very aggravated circumstances, Mr. Justice Collins observing that it was the worst case of its kind he had ever tried. Both parties were given to intemperance, but the prisoner repeated his violence again and again after intervals, until the poor woman sank exhausted. In the other case, the prisoner O'Callaghan was an unqualified assistant to the surgeon whose son he murdered under shocking circumstances. As is too often the case, the local press made it appear that the prisoner was a fully qualified medical practitioner, which is not true. Much to the surprise of many who heard the trial the jury found a verdict of "Manslaughter," but the judge showed his sense of the enormity of the crime by the sentence he pronounced.

The Criminal Law Amendment Act and Early Pregnancy.

There were a large number of cases of felony and misdemeanour under the Criminal Law Amendment Act, 1885. In one case where the prisoner was charged with misdemeanour the girl, who was only fourteen years and five months old, was delivered of a fully matured child on Nov. 2nd last, and in another case the girl, though only fifteen, was several months pregnant. It is significant of the effect of new Acts of Parliament in creating new offences that prior to the Act of 1885 neither of these cases would have been a criminal offence; while before the year 1875 what may be termed the "felony age" was under ten, and the misdemeanour age above ten and under sixteen. As it is well known that the majority of females do not attain puberty till the age of fifteen, the provisions of the more recent Act have reasonable grounds for their enactment. There is much to be said in favour of extending the age from sixteen to eighteen.

Dec. 10th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Royal Infirmary: Election of Pathologist.

DR. T. BEATTIE has been elected pathologist at the Royal Infirmary. He is an excellent man for the post. Formerly the members of the honorary staff were appointed by the governors and canvassing was allowed; but as this involved considerable expense, and was troublesome to both the candidates and the electors, the system was altered. Now the honorary staff are elected by the house committee, the consulting staff, and, in addition, by a selection committee consisting of thirty governors who are not otherwise connected with the management of the institution, and canvassing is forbidden. The house committee consists of thirty-two members, and there is at the present time a consulting physician and a consulting surgeon, making the constituency sixty-four. Of these sixty-four votes only thirty-eight were recorded last week. It may be taken that on every election the house committee, of which the eight members of the staff are members, will vote, so that practically the house committee has in its hands the election of the honorary staff. Many will say this is as it should be, for the house committee knows most about the requirements of the institution and takes the greatest interest in its management. There are, however, two sides to the question, and when thirty outside governors were appointed to take part in the election of the honorary staff it was certainly never contemplated that, as on this occasion, less than half of them would record their votes. If canvassing is not to be allowed it is obvious that, under the present system, candidates who have had no connexion with the infirmary, opposed by those who have, are still further severely handicapped. Other hospitals have changed their method of electing the honorary staff in the direction the Newcastle Royal Infirmary has, and it would be interesting to know whether they are satisfied with the result. The method of the election of the honorary staff is certainly a very important matter to a hospital and to the public.

Newcastle-on-Tyne, Dec. 11th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Lord Rector's Address at Edinburgh University.

LORD JUSTICE GENERAL ROBERTSON, Lord Rector of Edinburgh University, delivered his rectorial address in the Synod Hall on Friday of last week. The hall was crowded

by students and others, and the chair was occupied by the principal, Sir William Muir. The Lord Rector began by thanking the students for the honour they had done him by electing him, and reminded them that he was the first Lord Rector who had been elected by the votes of female as well as male students. The traditions of the University were Scottish, and some of them even local; but while still retaining its patriotism it had become in the highest degree cosmopolitan. A moiety of the students are drawn from England, Ireland, Australasia, Canada, and India, while no local partiality has prevented the chairs being filled by the best of the distinguished men of all seats of learning who have desired them. This showed that the true ambition of Scotland was not to be satisfied with a commerce of the mind limited to their own land. The body of undergraduates constitutes a living appeal to the imperial sentiment of the community in which they live. If with sober pride they may believe that the training of the University attracts men from afar, let it not be forgotten that prestige must not be slept on. The credit of all colleges incessantly fluctuates, and is only maintained by achievement and prowess. He referred to a movement on foot for encouraging research by enabling picked men who had shown scientific insight to stay awhile in the University and prosecute investigations. Looking to the prosperity of the University, they need not merely the very best machinery for acquiring the very best skill in all the professions, but here, as everywhere, it is the forward policy, the shining feat, that captivates mankind. And he hoped that some wealthy Scotsman would link his name in imperishable honour with the scientific future of their country by endowing research. Referring to the fact that that was probably the last time an important university function would be held in a hired hall, he took for his next words the words on the roof of the McEwan Hall: "Wisdom is the principal thing; therefore get wisdom: and with all thy getting get understanding." Other good gifts the University had to bestow, but this was the gift of her right hand. It was not professional skill, or scientific knowledge, or literary accomplishment, although all were instruments towards this attainment: it was the balanced mind, the candid disposition, the educated view that perceives the relations of things, that is alive to analogies and not innocent of irony, that does not expect to find all things in categories, and all black or white, that is reverent to what is great and disaffected to what is smug. Not in mental acquisition, but in mental habit is wisdom found. The University is also the nursing mother of culture, and her sons its champions. In its pristine meaning culture included appreciation of form and love of the beautiful, but the crown and flower of all education was intellectual magnanimity. Hence in the choice of studies wise men, if their leisure be small, will go to the main streams of thought and action. However interesting may be the by-ways of history, the curiosities of literature, and the eccentricities of criticism, it is not there that magnanimity will be learned. He then proceeded to speak of the public value and public duties of disciplined intellect. If he had at all sketched the qualities of the educated mind, its capacities for the comprehension and furtherance of national interests stood apparent. In proportion as the mind of a country is driven away or withdrawn from interesting itself in the State and serving the State, that country is weakened and human progress is stunted. In urging the duty of educated men, he spoke not only of active participation in politics, for more direct and subtle agencies were at least as potent. What was required was that the light of knowledge should be turned on the path of this self-governing people and the best aid given by the best minds. Every man's life had its patriotic side, and his responsibility is not lightened, but increased, by the degree of his mental equipment. There is due to the State a tribute or excise out of cultivated intellect, and at present he doubted if the State got its due. He spoke thus because he had an immense desire for the success of the system of popular government now established among them. That success must depend on the prevalence of reason in its counsels, and he did not believe that British householders were hostile to reason or disinclined to avail themselves of the best informed guides. He considered the pessimist view, which was that the many were ignorant, poor, and selfish, and would overbear the men of light. He thought all that highly fallacious, and argued against it, showing if it would ever be so it was because the men of reason and intellect had accepted the game as up. It was one of the reassuring signs of the times that plain speaking and courage were increasingly popular. He used the term pessimist to describe the desponding and disaffected tone about popular government which is not unknown in university circles, and which unquestionably tends to deprive the State of what is its due. He suggested that it was the duty of men of culture to take more part than they do in current affairs. They ought to take their proper place, but they will only get it if they realise the condition—the very natural and quite tolerable condition—of popular government, and more or less of all governments: "If thou wilt be a servant unto this people this day, and will serve them, and answer them, and speak good words to them, then they will be thy servants for ever." He next dwelt upon the necessity of a better, improved, more liberal, and more steady public opinion; and said that questions which were sure to come up in the future should be faced so that events should be moulded and developed beforehand. He referred particularly to the subject of Socialism. It would be said that the performance of what he described as the part of educated men in the State depended on a high standard of public spirit, and he assented to it. Why should there not be such a standard? And if to the attainment of it some further effort be required, where better and to whom could an appeal for such effort be made than here and to them? He had a right to address them, undergraduates of a great university, as children of the light and children of the day. As the personal possession of culture was the condition on which alone the service of which he spoke could be rendered to the State, he did not wish to divert their attention from the studies to which they were at present pledged, but rather to suggest another and a nobler reason for their strenuous prosecution. Whatever their future might be, they must not lose sight of the State or regard the ambiguous problems of political progress as outside the ambit of their influence. There was not an intellectual life well led, not a book well written, not a discovery made, that might not by some conscious regard to general enlightenment be invested with a double beneficence. The address was listened to with close attention.

Extension of the Edinburgh Royal Infirmary.

The managers of the Edinburgh Royal Infirmary have finally decided to recommend that the proposed extension of the infirmary should be at once proceeded with. The complete scheme of extension is estimated to cost £100,000, but it is proposed at present only to go on with half that amount. The new buildings will occupy the site of the old Sick Children's Hospital and the land to the north of it to the east of Lauriston-lane. The extension is much needed, for during the greater part of the year there is a much greater demand for beds than can be supplied.

The President of the Royal College of Physicians of Edinburgh.

Dr. J. Batty Tuke has been elected to the Presidential chair in succession to Professor Gairdner. Professor Simpson has been renominated Vice-President.

The Edinburgh Medico-Chirurgical Society.

This society met last week. Dr. Craufurd Dunlop read a valuable paper on investigations he had made on the presence of Oxalic Acid in Urine; and Dr. G. A. Gibson read a record of a series of interesting cerebral cases which had been operated upon with variable success.[1]

Outbreak of Typhoid Fever at Dunbar.

A considerable outbreak of typhoid fever has occurred in Dunbar, and is causing interest because of a difference of opinion as to its probable cause. This is one of the districts in which caravan hospitals are being tried, as was mentioned in THE LANCET at the time.[2] One of these was being used for cases of typhoid fever and, according to one statement, was so placed that a cesspool for its use drained into a small stream, the water of which entered directly or indirectly into the water reservoir for the town. The other statement is that the water of a loch in connexion with the water-supply was bad, evidence of this being found in the fact that many dead fish have been discovered in it. The expert opinion seems to be at variance and appears to have got mixed up with the question of the suitability of caravan hospitals. The

[1] A report of the proceedings will be found on another page.—Ed. L.
[2] THE LANCET, May 25th, 1895.

site upon which a caravan hospital is placed is necessarily one of great importance, but an error in this particular should hardly be allowed to discredit a scheme that is at least deserving of a fair trial.

Dec. 9th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Mater Misericordiæ Hospital.

THE interesting case of intestinal stricture in which Mr. Coppinger a month ago established a lateral anastomosis between the ileum and transverse colon has progressed favourably. As will be remembered from the brief notice of this operation which appeared in THE LANCET of Nov. 23rd, a Murphy button of aluminium, imported from Chicago by Messrs. Fannin and Co. of this city, was made use of. Now, it has recently been discovered that aluminium is soluble in alkaline saline solutions, a fact which is said to have taken the French naval engineers recently by surprise, and to have caused the destruction of some of their modern torpedo-boats. The metal seems very stable, and is certainly no more prone to oxidise or tarnish under ordinary conditions than gold or silver, but it dissolves with effervescence in even a dilute solution of potash. Under these circumstances, and in the absence of any reports dealing with the matter in the medical journals, the behaviour of the button in this case was noted with considerable interest. It only appeared on the eighteenth day after operation, and seemed little the worse for its long sojourn in the intestine or for the work which it had successfully performed. Its two parts, however, were found to be adherent, as if soldered together, and although steeping in ether, boiling in oil, &c., were tried, it was found impossible to unscrew the instrument or to separate its halves. I would suggest that the next surgeon who places an aluminium anastomosis button in a patient's lower intestine should have it carefully weighed before and after use, and that he be prepared for any effect that the absorption of the alkaline salts of that metal might possibly produce.

City of Dublin Hospital.

Ligature of the second portion of the left subclavian artery was successfully performed by Mr. Henry G. Croly at this hospital on the 3rd inst. The patient suffered from a traumatic aneurysm which overlay the third part of the artery and rendered operation impossible in that situation. Some of the outer fibres of the anterior scalenus muscle were accordingly divided, and a ligature of kangaroo tendon applied round the bloodvessel in its second portion. The patient is doing well on this the eighth day after operation.

Dublin University Biological Association.

At the opening meeting of this association, which was held on the 5th inst. in the New Building, Trinity College, Dr. Alfred R. Parsons, the incoming President, read a very interesting paper on Modern Tendencies in the Treatment of Disease. It was listened to by a large and appreciative audience, which included the Presidents of the Royal Colleges of Physicians and Surgeons, and the President of the Royal Academy of Medicine, Ireland. The latter—Dr. James Little—contributed an able speech to the discussion which followed, while Professor Purser, Sir C. Nixon, and Dr. C. E. Fitzgerald proposed or seconded resolutions.

The House of Industry Government Hospitals.

Mr. James Wilson Hughes, who was well known and esteemed in medical circles in Dublin, died on the 9th inst. The deceased gentleman filled the offices of secretary for more than thirty years to the Richmond, Whitworth, and Hardwicke Hospitals, as well as to the Westmorland Lock Hospital and St. Mark's Ophthalmic Hospital.

Epileptic Patients in the Belfast Workhouse.

The Local Government Board have sent a communication to the Belfast board of guardians pointing out that, while they consider it proper that epileptics should be classified in a separate ward where they can receive the special attention necessary to their condition, they think it undesirable that such a ward should form part of the lunatic department. Simple epileptics—that is, epileptics whose mental condition in the intervals between their seizures is sound—should not be associated with the insane who happen also to suffer from epilepsy. The Local Government Board hope that the guardians will separate the epileptic ward intended for simple epileptics from the lunatic department of the workhouse. A sub-committee of the guardians have also been considering this question, and on the same day as the letter from the Local Government Board was made public this sub-committee in their report to the board of guardians recommended that a cottage hospital should be provided for the accommodation of the epileptics on a piece of ground adjacent to the lunatic department, where at any time they could have the advantage of the advice of the resident medical officer.

Sanitary Powers for Portrush.

At a meeting of the Portrush town commissioners, held on Dec. 4th, a resolution was carried to the effect that a petition be presented to the Local Government Board to have the town of Portrush constituted an urban sanitary authority. Portrush is the leading summer health resort in the North of Ireland, and at present the two main factors of a town from a health point of view—the water-supply and the sanitary arrangements—are not controlled by the town commissioners. These matters are managed by the Coleraine board of guardians, many of whom reside a long distance from Coleraine, and it is naturally felt by the town commissioners who live in Portrush that people residing there would take a much greater interest in the condition of the place, hence they are anxious that an urban sanitary authority should take charge of the town. There is all the more necessity for this being done at once, as during the past summer there was a strong feeling existing among those who resided at Portrush that both the water-supply and the sanitary arrangements of the place might be improved.

Certificates in Lunacy Cases.

At the weekly meeting of the Lisburn board of guardians, held on Dec. 3rd, the chairman read a letter from Mr. Jefferson (dispensary medical officer), in which he said that in a certain lunacy case (named) he filled in the usual form certifying that the person was a dangerous lunatic, and also a copy to be forwarded to the Lunacy Commissioners in Dublin. When the resident magistrate at Lisburn read it he ordered Mr. Jefferson to be sworn. The latter declined, as he said his certificate was sufficient, and added that he would take the oath with pleasure if the magistrate would show him the law compelling him to be sworn. This the resident magistrate declined to do, and Mr. Jefferson left the court. The chairman also read a letter from the Local Government Board stating that Section 10 of 30 and 31 Vic., cap. 118, only requires a medical officer to certify a person to be a dangerous lunatic. There is nothing in the section as to his giving sworn evidence, and the guardians would do well to consult their solicitor in the matter. Mr. Jefferson deserves the thanks of the profession for the manly and dignified stand he took in this matter.

The Rate of Speed for Ambulances.

The city coroner of Belfast and the police committee are at present at variance on the question of the speed at which the ambulance carriages should be driven. Formerly these most useful vehicles were allowed to go at a quick rate if summoned to a street accident, but of late they are only allowed to go at a trot. A jury at an inquest some time ago condemned this slow rate of progression, but, notwithstanding, at an inquest held on Dec. 6th a member of the fire brigade (who take charge of the ambulances) said that they could only trot, as the coroner put it, "to save human life," while to save property they are allowed to gallop. The coroner having expressed himself strongly on this matter at the inquest on Dec. 6th in reference to the death of a man who was rescued from the water at the quay, and who was subsequently taken by the ambulance to the Royal Hospital, the jury added a rider to their verdict in which "they strongly protested against the action of the police committee of the corporation in preventing the ambulance from proceeding at a rapid pace on its work of mercy to save human life, while it permitted the fire brigade to gallop to save property."

Charge of Infanticide: the Frenzy of Parturition.

A case tried at the Cork Assizes last Saturday is of considerable importance from a medico-legal point of view. A domestic servant, only seventeen years old was charged with the murder of her child. In a small loft over the room in which the prisoner had slept the body of the child was found The head had been cut off and the arms were tied together

with handkerchiefs and clothes belonging to the accusedr Mr. Falvey of Tralee, probably alluding to the smallness. of the pelvis, stated in evidence that the circumstances under which the birth occurred must have caused the girl frightful suffering, and he believed that owing to her great suffering she would become unconscious of what she was doing. Mr. Denny of Tralee gave similar evidence, and the judge in summing up said that, if the jury thought that the prisoner from the condition of her mind was not guilty of the murder, he took the responsibility of directing them that they could come to the conclusion that she was guilty of the offence of concealing the birth of the child. The jury after half an hour's deliberation found the accused had committed the act charged against her, but that she was insane, so as not to be responsible, according to law, for her actions at the time that the act was done. His lordship then ordered the prisoner to be detained as a criminal lunatic until her Majesty's pleasure with regard to her should be made known.

The Proposed Amalgamation of the Mill-street and Kanturk Unions: Important Government Project.

The guardians of the Millstreet Union have been for some time desirous of amalgamating their union with the Kanturk Union and of converting the Millstreet workhouse into an auxiliary lunatic asylum. The Local Government Board sent one of their inspectors to hold an inquiry on the subject, and they have informed the Millstreet guardians that they do not at present feel at liberty to sanction the proposed amalgamation, as the Kanturk guardians are entirely opposed to it. In the course of their letter the Local Government Board made the very important statement that "the Government have under consideration the propriety of adopting a general scheme of amalgamation in connexion with a better system of the classification of the poor in workhouses." The proposals of the Government are anxiously awaited, as a rearrangement such as is suggested would be likely to result in an amelioration of the lot of many of the poor people who are obliged to seek the shelter of the workhouses, and the taxpayers would hope for a considerable retrenchment of establishment charges.

The Belfast Nurses' Home and Training School.

At the annual meeting of this medical institution, held on Nov. 29th, it was reported that the year 1895 was its most auspicious one as regards its most vital interests as a training home—viz., its connexion with the Royal Hospital. The board of management of the Royal Hospital early in the year agreed to furnish a room in the hospital for the lady superintendent of the Nurses' Home, and, subject to their existing rules, to give her the complete control of the nursing of the hospital and the general cleanliness of the wards. Further, the Royal Hospital board arranged that the ladies of the Nurses' Home committee should in turn act as orderlies in the hospital, invested with their authority to visit not only the wards but the hospital generally, and to report directly to them on any subject they should consider necessary or desirable. In a very able speech, made by Professor Cuming in moving the adoption of the report, he said the arrangement made between the Nurses' Home and the Royal Hospital had his entire concurrence. As he pointed out, the interests of the two places (the Royal Hospital and the Nurses' Home) were concurrent, and everything that tended to improve the one tended also to improve the other. Professor Cuming spoke in very feeling terms of the great loss sustained by the hospital and the Nurses' Home in the death of Dr. Ross, a man who had left an example to his colleagues that it would always be well to profit by—the example of a man who was strictly devoted to his duty and who was unfailing in his regard for every form of misery and distress.

Dec. 11th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Budget of the Paris Hospitals.

IT may interest the friends of such institutions as my own dear old Guy's Hospital, which, owing to depreciation in the value of agricultural property, have to struggle against bad times, to be placed *au courant* of the sum asked for annually by the Assistance Publique for the maintenance of the hospitals of Paris. For the coming year the total expense is fixed at the enormous sum of 49,275,296 fr. 50 centimes, or nearly £2,000,000. The total number of days spent in hospital in 26,307 beds by patients during 1895 was 9,068,000, these beds including those found in hospitals properly so called, infirmaries, *maisons de retraites*, and divers foundations. The hospitals strictly so denominated represent 12,750 beds, with 4,517,000 days spent therein by patients. The salaries of the administrative *personnel* (*chef* and *employés de bureaux*, *directeurs des hôpitaux*, &c.) attain, together with sundry accessory expenses, the total of 2,196,310 fr. The medical *personnel* absorb 768,400 fr., thus apportioned:

132 physicians	198,100	francs.
63 surgeons	80,400	,,
14 accoucheurs	19,100	,,
253 internes (medicine and surgery)	184,100	,,
21 pharmacists	114,000	,,
153 internes en pharmacie	107,600	,,
18 dentists	10,200	,,
38 midwives (*sages-femmes*) ...	42,300	,,

Then come, in addition, the director, demonstrators, and *chefs de laboratoire* of the Anatomical School of Clamart, who collectively receive 12,600 fr. Accessory expenses, comprising 125,000 fr. for indemnity to externs of out-of-the-way hospitals, and 99,000 fr. paid to the newly created *assistants de consultation* (young medical men who replace hospital physicians and surgeons in the out-patient room), reach 335,468 fr. The nursing department costs 1,973,550 fr., this department being made up of 71 nuns, 249 male and female superintendents (heads of wards), 624 sub-superintendents, 354 extra superintendents, 390 first-class male and female nurses (*infirmiers* and *infirmières*), and 2742 ordinary nurses (male and female). The drug department costs 1,370,000 fr., and surgical instruments, apparatuses, and dressings involve an expenditure of 1,154,035 fr. Some idea of the costliness of modern materials for the dressing of wounds may be gathered from the under-mentioned details:

Carded wool	80,000	francs.
Ungreased cotton wool ...	76,000	,,
Ordinary cotton wool and peat	700	,,
Muslin	215,000	,,
Iodoform gauze	57,000	,,
Salol gauze	14,000	,,
Carbolic gauze	3,000	,,
Oiled silk	46,000	,,

The commissariat department absorbs nearly 6,000,000 fr., 1,000,000 fr. going for bread, 3,290,000 fr. for meat, and 1,400,000 fr. for wine.

Is Gastro-intestinal Antisepsis realisable?

We know that since the researches of Bouchard and the late Dujardin-Beaumetz the disinfection by means of drugs of the gastro-intestinal canal has become quite a common therapeutical practice, especially in France. The most common method of attaining this result is to prescribe a mixture (in *cachet*) of salicylate of bismuth and benzo-naphthol or β-naphthol. But is the cleansing result as satisfactory as the authors of this method would have us believe? Dr. Bardet asked this question on the 27th ult. at the Société de Thérapeutique, and adduced some facts that appear to negative the value of the much-vaunted and seductive method. The test of the efficacy of these antiseptics is the deodorisation of the stools, the diminution of their maximum of toxicity, and a like diminution of the degree of urinary toxicity. Now, Dr. Bardet denies that deodorisation means an anti-ferment action. Besides, fœtidity of the fæces is not necessarily indicative of putrid fermentation, which rare event is almost exclusively met with in biliary retention. He maintains that the deodorisation (so called) procurable by the use of intestinal antiseptics is in reality only a masking of the odour, this being proved by their powerlessness to attenuate the fœtor of really putrid fæcal matter, and because such deodorisation cannot be obtained by the employment of even powerful (non-aromatic) antiseptics such as mercurial salts. The bacteriological experiments of Dr. Bardet lead him to believe that the diminution of micro-organisms in the fæces brought about by the administration of naphthol, &c., is not real, and that Baczkiewicz is mistaken on this point. The culture on plates of previously diluted fæcal matter passed by four individuals before and after the prolonged administration of a daily dose of four grammes of benzo-naphthol yielded invariably an equal number of colonies. The change in urine toxicity is, according to Dr. Bardet, not a fair test, that being dependent on other concomitant agencies. He concludes, then, that local or general antisepsis of the alimentary canal by

means of salol, naphthol, or benzo-naphthol is an impossibility. He adds that their decomposition in the intestines is far from being a constant occurrence, for they frequently accumulate or are voided unchanged. Dr. Bardet does not, however, deny that favourable results are sometimes yielded by the method, but he is certain that the usual explanation of this action is not the true one.

The Sanitary Condition of the French Army in Madagascar.

The *Médecine Moderne* states that according to a letter addressed from Madagascar on Oct. 10th, to the *Tablettes des Deux Charentes*, the sanitary condition of the expeditionary force for the entire campaign was at that date as follows: deaths, 4000; in hospital, 6000; unfit for service (éclopés—lame), 3000. This left 2000 men fit for service out of a total of 15,000. But is there not some exaggeration in these figures?

Dec. 10th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Army Medical School.

THE centenary of the Army Medical School (Friedrich Wilhelms-Institut) was celebrated with great display on Dec. 2nd. A case of small-pox having occurred on the premises, it was considered inadvisable to conduct the ceremonial proceedings there, and they accordingly took place in the great hall of the University, where the leading army and naval surgeons and many old pupils assembled from every part of the empire. Prince Frederick Leopold, represented the Emperor, and delegates of the Government, the University, and the army were also present. The opening speech was delivered by General-Staff-Surgeon Dr. von Coler, the chief medical officer of the army, who pointed out that the kings of Prussia, and at a later period the emperors of Germany, always attached much importance to a well-trained army medical staff, and he then gave a short historical account of the medical service of the army. The results of recent improvements in practical surgery had been conspicuously shown during the last wars, but the development of practical hygiene was not less important. By improving the hygienic conditions of the army the amount of invaliding had been reduced by 42 per cent. since 1868, and the mortality by not less than 57 per cent. The lives of 2000 soldiers had, in fact, been saved by hygienic measures; for the deaths in 1894 were 2000 fewer than they must have been if the rate of mortality had been the same as in 1868. Following Dr. von Coler the Minister of Public Instruction congratulated the Army Medical Staff, saying that medical science in general was much indebted to them, since men like Professor Virchow, the late Professor Helmholtz, and others had been pupils of the Army Medical School and had begun life as army surgeons. The Rector of the University and the Dean of the Medical Faculty then spoke on behalf of their respective corporations. Finally, the Minister of War, General Brousart, read an imperial order, by which the Army Medical School was henceforth to be called the Emperor William Army Medical Academy. A reorganisation of it is also contemplated, details of which will, in course of time, be published by the War Office.

The Training of Military Surgeons.

The German method of training military surgeons is quite different from the British system, according to which all candidates for the medical service of the army are already duly qualified practitioners and in possession of a degree or diploma before their special military training is commenced. In Germany, on the other hand, the young men enter the Army Medical School at the beginning of their period of study; they board in the college free of charge, receive an allowance, and are trained in the University at the expense of the War Office. For every year they have been in the college they are obliged to serve two years in the Army Medical Staff. Although these students are under military jurisdiction—and, in fact, are military men—they wear no uniform whatever and possess almost the same academical freedom from restraint as the civilian students, attending together with them the lectures of the professors of the University, fulfilling the same curriculum, and passing the same examinations; they, however, may not choose their lectures or professors at their own discretion, but must attend where they are ordered. Besides the lectures at the University, additional courses are held for them in the college by the army medical officers on duty there, and during the final stage of their study instruction in military surgery and medicine is given by special military teachers. The college has the largest medical library in Germany, containing more than 50,000 volumes, good laboratories, and collections for the exclusive use of the students. After having taken their degrees and qualifications the pupils are appointed as army medical officers. But there are further advantages in store for them; the offices of clerk and dresser in the Charité Hospital are exclusively reserved for the pupils of the Army Medical School, and according to the regulations of this hospital the majority of the assistant physicians and surgeons must be army medical officers. The cause of this singular rule is twofold—namely, that the Army Medical School existed long before the University was founded, and that the Charité Hospital was originally of a purely military character. The great preponderance of the Army Medical Staff in the Charité Hospital and some other medical institutions belonging to the Government has always been regarded with some anxiety by the other members of the profession, and the military medical students are not universally liked by the civilian students, who complain that they are excluded by them from many of the better appointments.

Employment of Army Medical Officers in Civil Hospitals.

Since the above was written the medical profession has again been surprised by an announcement in the lay press relative to the employment of army medical officers. According to the plans of the Government a number of them will henceforth be appointed as assistants in several university and municipal hospitals, not only in Berlin, but also in the provincial towns. They will, as a rule, hold their appointments for six or twelve months, and will then be replaced by a new series. Arrangements have already been made by the Government with the boards and chief medical officers of some hospitals, and a large number of them are said to be very favourable to the innovation. The hospital boards will in this way save the salaries hitherto paid to their civilian assistant medical officers, as, of course, the Government will bear the expense of the new scheme. The army medical authorities, in explanation of their action, declare that the surgical training of the army medical staff is of supreme importance, especially in time of war, and that the military hospitals do not afford sufficient opportunity for surgical practice. This may be perfectly true, but the civilian population also has a just claim to the services of well-trained civilian surgeons. The number of hospital appointments in this country is very small, and only a few medical men are fortunate enough to be selected for them. If a portion of the appointments be reserved for army medical men the interests of the civilian profession will undoubtedly suffer, and it seems highly desirable that the legal advisers of the provincial medical boards (Aerztekammern) should give their views on this question.

Primary Actinomycosis of the Lungs.

Dr. Heusser, of Davos, Switzerland, has recorded in the *Berliner Klinische Wochenschrift* a case of primary actinomycosis of the lungs. In November, 1894, there was sent to him by Professor Lichtheim of Königsberg a lady who had fallen ill in April with all the symptoms of acute pleurisy. She had been in hospital under the care of Professor Lichtheim, and paracentesis was performed, by which 600 c.c. of serous fluid were drawn off, but the fever nevertheless continued. In the expectoration, which was scanty, no tubercle bacilli could be found. The patient was first sent home to the country, where she was expected to recover, and afterwards to Davos. There a slight infiltration of the right upper lobe and a cavity in the right lower lobe were diagnosed. In the expectoration, however, to the surprise of the physician in charge, instead of Koch's bacilli, typical actinomycetes were discovered. Although at first the case seemed to be hopeless the general state of the patient eventually improved. The fever very soon disappeared, the patient's weight increased 7·7 kilos. (= 17 lb.), and the infiltration of the lungs became apparently less. Nevertheless, actinomyces fungi, together with numerous streptococci, were still found at the time of her departure from Davos. It has for a long time been said that the climate of Davos is favourable to the arrest of tuberculosis, and according to Dr. Heusser this case seems to prove that it also tends to check the development of actinomycosis. He hopes that a residence on the mountain may be beneficial in cases of actinomycosis in other parts of the body.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Quinine in Italy.

I HAVE before me the Bill drawn up by Signor Boselli (Finance Minister) for the better regulation of the sale of quinine—a Bill which, if it become law, will prove of no small advantage to the profession, and, through the profession, to the public. In Italy about 16,000 persons annually die of malarial fever; about 3000 communes are unprovided with pharmacies at which prescriptions can be made up; and the average price at which quinine can be obtained by the public is 500 lire (£20) the kilogramme, while the State procures it for the army and navy at only 60 lire (£2 8s. 4*d.*) the kilogramme. It is worth remarking, moreover, that where malaria is most prevalent commerce is non-existent and the population is of the poorest—in other words, precisely where the bane falls heaviest the antidote is not to be had. His Excellency Signor Boselli proposes to remedy this condition of things, disclaiming in advance all intention of creating a State monopoly. He would concede to the firm or firms which purvey the drug the simple right to avail themselves of the shops in which are sold and retailed articles of a privileged character (*generi di privativa*)—like salt or tobacco, for instance. These shops are disseminated throughout the kingdom to the number of 27,000, are found in the humblest communes, and, being in direct contact with the public, can make quinine accessible to all. They are subject, moreover, to Government surveillance, which can repress every possible abuse. On payment of a small sum they can acquire the right to sell the privileged article, and Signor Boselli makes it obligatory on them to have on sale either the sulphate or the hydrochlorate of quinine or both—the hydrochlorate being the more energetic, and the sulphate the more commonly in use. The quality will be of the utmost purity, any adulteration being visited with rigorous penalties. The drug, whether sulphate or hydrochlorate, is to be sold in circular tablets, which can be easily swallowed, each tablet to be enclosed in a capsule to ensure perfect preservation. The price will be fixed at a sum which even the very poor can command—a price uniform throughout the kingdom for the sulphate and hydrochlorate respectively, so that three grammes of the sulphate will cost 50 centimes (5*d.*), and two grammes of the hydrochlorate also 50 centimes. There is little doubt that the Bill will become law, and as little doubt that it will prove a mighty boon to the Italian lower orders. Nothing can exceed the confusion and irregularity under which quinine is now sold. At Milan, for instance, it may be had for 25 centimes the gramme; at Florence, on the other hand, the same quantity costs double, sometimes treble, that sum. But even more important than the question of cheapness is that of purity. Every English physician practising in Italy knows to his cost the difficulty of procuring genuine quinine. For years it was sold, even in pharmacies of repute, adulterated with 60 per cent. of cinchonidine. Now there is a prospect of getting a pure and effective article, and the sooner Signor Boselli's Bill passes through committee and is entered on the statute-book the better for the practitioner in Italy and the public under his charge.

The Health of the Pope.

His Holiness is so far re-established in health that on several of the bright, dry, exhilarating days we have been enjoying lately he has been able to take carriage exercise in the Vatican gardens. These outings are timed for midday, when the warmth is greatest, and have included a visit to the Tower of Leo IV. and to that stretch of the gardens which is cultivated under His Holiness's direction.

Dec. 10th.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

Sanitation in Moscow.

THE following notes relating to the sanitary condition of Moscow, gathered during a brief stay in that beautiful city, may be of interest. The population of Moscow when the last census was taken in 1889 was about three-quarters of a million; it is at present reckoned at something just under a million. The city is rapidly growing, and it is calculated that in a few decades the population will be double what it was at the last census. The exact death-rate of Moscow is not easy to ascertain in the absence of more exact knowledge as to the present population, and it is not stated even approximately in the annual health reports of the city. It appears, however, that the mortality is really something like 35 or 37 per 1000 living. This high death-rate is partly, but not wholly, explained by the large number of deaths among children in the Foundling Hospital. In the last annual report for 1893, of the 27,067 deaths which occurred in the city, 3034 were of infants in the Foundling Hospital. These deaths are generally excluded from the mortality statistics, and with justice, as the large majority of children brought to the hospital are born outside Moscow. They are only kept in the hospital for one month, and are then put out to nurse in various villages; the number of children who annually pass through the hospital varies from 16,000 to 20,000. But even after these deaths are excluded from the general mortality, the death-rate remains at something just under 30 per 1000.

The water-supply of Moscow is at present in a stage of transition. Two years ago a new system of supply was opened; pipes were laid down, and a constant supply to each house afforded in something like one-third of the city. The remaining houses still obtain their water by means of barrels brought round on small hand-carts. The water they receive is, however, the same as that supplied directly to the other houses, the barrels being filled from large underground cisterns, of which there are several in different parts of the town. The water distributed is therefore ultimately from the same source for the whole of Moscow. This source is at a distance of some ten versts (seven miles) from the city boundaries. It consists of Artesian wells, forty in number, covering a considerable area of ground near the village of Muititsch. The soil there is for the most part clay. The water is brought in cast-iron pipes, two feet in diameter, to the Alexéiefski pumping works, about one mile from the city barriers. There is here a small underground reservoir capable of holding 300,000 vedros (a vedro is 2·7 gallons; this is therefore some 810,000 gallons). Thence the water passes to the Krestofski water towers within the city barriers. There are two towers, each 128 feet high. At the top of each is a reservoir of cast iron holding 150,000 vedros. As the daily supply to the city is between one and one and a half million vedros, the water in all these reservoirs is changed several times in the day. The water is distributed to the city from the towers by a pipe twenty-eight inches in diameter. This, as all the other cast-iron pipes, is "processed" inside by one of the tar processes for protecting iron. If the present population of Moscow be a million, the daily water-supply is only about three or four gallons daily per head. To increase this extremely small water-supply is a problem now occupying the municipal authorities. The present source at Muititsch is capable of supplying considerably more than it does at present, and to still further supplement this it is proposed to take water from the Moskva river some distance above the point where it enters the city. It is hoped that in this way it will be possible to supply seven vedros (nineteen gallons) daily to each person. The water from the river is said to prove, on examination, to be of remarkable purity. Like all rivers, however, it has the disadvantage that there are a number of villages along its banks, from which much objectionable matter must inevitably reach the water. The present water-supply is entirely unfiltered; the water, from the chemical and bacteriological points of view, is, nevertheless, of a high degree of purity. Before leaving the subject of the water-supply, it is worth noting that the distributing pipes have to be laid at least ten to twelve feet below the surface on account of the intense cold in winter. In the great frosts of the winter of 1892-93, even at this depth, a large number of pipes were split by the cold. Ninety degrees of frost (−58° F.) occurred on more than one occasion.

Up to the present time there has been no system of drainage in Moscow, the old and objectionable cesspool taking its place. The authorities have, however, already begun to execute a scheme for the sewerage, first of the central third of the city, and ultimately of the other two-thirds. A network of underground pipes already exists for the carrying away of rain water. There are strong grounds for suspecting that a great many houses have connected their drain pipes with these; it is certain that sewage in some way gains access to them. From the frequent and unusually large openings at the edge of the kerb-stone into these pipes a constant, excessively foul-smelling, visible

steam is seen to arise during frosty weather—that is to say, during half the year. It undoubtedly arises invisibly during the other half. It is this that has gained for Moscow the reputation among visitors of being a "smelly" city. At present it is impossible to deny that the charge is well founded, but the new system, if thoroughly carried out, should do much to remove the reproach.

The system adopted is the "separate system," in which one set of pipes will carry the rain water and another the sewage. The latter vary from six inches to seven feet in diameter, the smaller pipes being of earthenware and the larger of brickwork. The best method of ventilating and flushing sewers and drains has been the subject of prolonged consideration. Over three years ago three engineers to the city authorities were commissioned to visit Germany, Switzerland, and England to obtain the latest information on this question. In England they visited London, Wimbledon, Croydon, Oxford, Reading, and Dover. A full report of their labours was issued in Moscow after their return. I am indebted to M. Semenof, who was a member of this Commission, for most of the details here given of the new drainage system in Moscow. The same question was dealt with by another Commission under the presidency of M. Erisman, Professor of Hygiene in the Moscow University, and their very full and instructive report has been issued during the past few weeks. It contains, amongst other things, an account of exhaustive experiments upon the effect of extreme cold, such as occurs in the winter here, upon the usual arrangements for ventilating drains and sewers. The sewage matter will be conducted, under the new system, to a large area of land obtained for the purpose by the municipality, about twelve miles from the city. This area measures 1000 desiatins, or 2700 acres. The sewage will be disposed of on the principle of broad irrigation.

It will be seen from the above notes that, while the present sanitary condition of Moscow leaves much to be desired, extensive schemes of reform are already initiated. The coronation of the Emperor, which is fixed for May 6th (18th) next, and the International Medical Congress, which is, I learn, to be held here in August, 1897, will probably prove powerful stimuli to the rapid execution of these schemes.

The Twelfth International Medical Congress.

I have just learnt from Professor Erisman, the general secretary to the Congress, that the date fixed for the next International Medical Congress is the week beginning Aug. 19th and ending Aug. 26th (New Style), 1897. The official announcement will very shortly be sent to the English press. The Emperor has given his Imperial sanction to the Congress, and the Grand Duke Sergi Alexandrovitch, the governor of Moscow (and grandson-in-law to Queen Victoria), has granted it his patronage. The nominal president will probably be the Minister of Public Education; the acting president will almost certainly be Professor Klein, the Dean of the Faculty of Medicine in the University of Moscow. Professor Erisman, who holds the chair of Hygiene, has, as already stated, been elected general secretary. The meetings of the Congress will be held in the theatres and laboratories of the University Clinique, the so-called *klinitcheski gorodok*, or clinical townlet. Papers and discussions must be in either the French or German language; Russian has been excluded lest the Congress should become national rather than international, and English on the grounds that it is a language little used or understood by other than Englishmen.

Moscow, Nov. 24th (Dec. 6th).

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Dean Case.

IT cannot be said that the *dénouement* of the Dean case will add to the prestige of the medical profession, but rather will enforce the old proverb about "the cobbler and his last." It will be remembered that Dean was found guilty by a judge and jury of poisoning his wife, but that popular clamour induced Parliament to appoint a Royal Commission to reinvestigate the case, the Commission consisting of two medical men and one lawyer. The medical portion found that there were doubts as to Dean's guilt, and he was pardoned in consequence. The legal member dissented from the report of the Commission. Then the prosecutor for the Crown made a sensational statement to the effect that the solicitor for the defence had admitted that Dean had confessed his guilt, and Dean and his solicitor were arrested on a charge of conspiracy, and Dean was also charged with perjury. The druggist who sold him the poisons was discovered, the solicitor admitted that Dean had confessed, and Dean then himself admitted his crime, was found guilty of perjury, and is now undergoing trial, with his solicitor, for conspiracy. The medical problem still remains that Dean gave his wife both arsenic and strychnine, but she only exhibited symptoms of arsenical poisoning.

The Diagnosis of Leprosy.

In October, 1894, a supposed case of leprosy was sent from Rockhampton to Brisbane, with a certificate from two medical men that the patient was suffering from leprosy. He was there examined by four practitioners, and from serum expressed from a tubercle on the thigh the bacilli of leprosy were obtained, and the patient was sent to the leper lazaret at Dunwich. In July, 1895, as some improvement had occurred in the patient's condition, the Colonial Secretary instructed Mr. Pound, the Government bacteriologist, who is not a medical man, to examine the patient. He reported that he could find no bacilli, and the Colonial Secretary transferred the patient to another lazaret at Peel Island. At the August meeting of the Queensland Branch of the British Medical Association the action of the Colonial Secretary was discussed and criticised adversely. It was pointed out that as Mr. Pound was not a medical man and had no clinical knowledge of leprosy to enable him to select serum from proper situations for bacteriological examinations, his negative results were of no value, and the following motion was passed unanimously: "That, whereas a bacteriological examination forms an important part of the medical examination of a suspected leper, it is necessary that such bacteriological examination should be conducted by, or carried out under the immediate supervision of, a qualified medical practitioner."

Conference of Medical Staffs of the Hospitals for the Insane, Victoria.

In October was inaugurated the first of a series of conferences, which it is proposed to hold annually in Melbourne, of the medical staffs of the various hospitals for the insane in the colony. The subjects discussed were: 1. The training and examination of attendants and nurses, and their registering. It was decided that, in conjunction with the scheme of teaching of attendants now adopted, examinations should be held, and the results should largely influence promotions. 2. The equipment of the metropolitan asylums with apparatus for the prosecution of pathological work, and the appointment of a pathologist was approved. 3. It was decided to make a series of collective investigations on the subject of general paralysis of the insane, which was becoming increasingly prevalent.

Quacks and Indecent Advertisements.

Reference has been made in previous communications to the extent to which quackery flourishes in the colonies. Every newspaper is crowded with quack advertisements, which grow bolder and more indecent every year. The Medical Defence Association of Victoria recently waited on the Chief Secretary and urged upon him the necessity of introducing a Bill into Parliament to suppress such advertisements, and the various medical societies have passed resolutions in favour of such a Bill being passed. The quacks do not get it all their own way, however, in Victoria. One of them was recently charged with offences against the Medical Act, in that he pretended to be an apothecary and prescribed outside his open shop. It appeared that he was called in to see a woman who was suffering from an ovarian tumour. He, however, denied that she had a tumour and prescribed for her. She grew worse, however, and was subsequently operated on at a hospital with a fatal result. The first charge was held to be proved, and the quack was fined £5. He subsequently sued the husband of the woman for the value of the drugs supplied, but lost his case.

Nov. 6th.

ACCIDENT TO A MEDICAL MAN.—Last week whilst returning from seeing patients, Dr. T. Evans, the medical officer of health of Newquay (Cardiganshire), and his groom were thrown out of a dog-cart; both had a miraculous escape, but the horse had to be killed owing to the injuries it had received.

Medical News.

UNIVERSITY OF LONDON.—M.B. EXAMINATION.—The following have passed the under-mentioned examinations for honours (October, 1895):

MEDICINE.

FIRST CLASS.

Crookshank, Francis Graham (scholarship and gold medal) University College.
Salter, Alfred, (gold medal), Guy's Hospital.
Abrahams, Bertram L., B.Sc., University College.
Gillies, Sinclair, St. Bartholomew's Hospital.
Cook, John Howard, University College.

SECOND CLASS.

Shaw, Harold Batty, University College.
Cook, Albert Ruskin, B.Sc., Cambridge University and St. Bartholomew's Hospital.
Handley, William Sampson, Guy's Hospital.
Dimsey, Alfred, University College.
Harnett, Charles John, Guy's Hospital.
Sowry, George Herbert, St. Bartholomew's Hospital.
Pugh, William Thomas Gordon, Middlesex Hospital.
Walton, Herbert James, St. Bartholomew's Hospital.

THIRD CLASS.

Eastes, George Leslie, B.Sc., Guy's Hospital.
Every-Clayton, Leopold E. V., Guy's and London Fever Hospitals.
Rodocanachi, A. J., B.Sc., University College.
Thomas, Thomas Morrell, Guy's Hospital.
Sinigar, Harry, Mason College.
Despard, Rosina Clara, London School of Medicine for Women.
Hull, Charlotte Elizabeth, London School of Medicine and Royal Free Hospital.
Brook, Sydney Wilkinson, Owens College and Manchester Royal Infirmary.
Bodman, John Hervey, University College, Bristol, and St. Bartholomew's Hospital.
Traill-Christie, Margaret Marion, London School of Medicine and Royal Free Hospital.

OBSTETRIC MEDICINE.

FIRST CLASS.

Gillies, Sinclair (Scholarship and Gold Medal), St. Bartholomew's Hospital.
Handley, William Sampson (Gold Medal), Guy's Hospital.
Hopton, Ralph, Yorkshire College.
Cook, Albert Ruskin, Cambridge University and St. Bartholomew's Hospital.
Every-Clayton, Leopold E. V., Guy's and London Fever Hospitals.
Salter, Alfred, Guy's Hospital.

SECOND CLASS.

Cook, John Howard, University College.
Pugh, William Thomas Gordon, Middlesex Hospital.
Rodocanachi, Ambrose John, University College.
Bodman, John Hervey, University College, Bristol, and St. Bartholomew's Hospital.
Jewell, William Henry, Guy's Hospital.
Sowry, George Herbert, St. Bartholomew's Hospital.

THIRD CLASS.

Coleman, James Jordan, Guy's Hospital.
Dimsey, Alfred, University College.
Shaw, Harold Batty, University College.
Vellacott, Philip Northcott, Guy's Hospital.
Despard, Rosina Clara, London School of Medicine for Women.

FORENSIC MEDICINE.

FIRST CLASS.

Harnett, Chas. John (Scholarship and Gold Medal), Guy's Hospital.
Gillies, Sinclair (Gold Medal), St. Bartholomew's Hospital.
Abrahams, Bertram Louis, University College.
Salter, Alfred, Guy's Hospital.
Sinigar, Harry, Mason College.
Nicholson, T. Goddard, B.Sc., St. Thomas's Hospital.
Shaw, Harold Batty, University College.
Kirton, Reginald Gower, London Hospital.

SECOND CLASS.

Handley, William Sampson, Guy's Hospital.
Eastes, George Leslie, Guy's Hospital.
Hardenberg, Edward Fras. H., Guy's Hospital.
Hunt, Tom Harold, Owens and Yorkshire Colleges.
Pearson, Maurice Grey, B.Sc., St. Bartholomew's Hospital.
Vellacott, Phillip Northcott, Guy's Hospital.

THIRD CLASS.

Despard, Rosina Clara, London School of Medicine for Women.
Crookshank, Francis Graham, University College.
Cook, Albert Ruskin, Cambridge University and St. Bartholomew's Hospital.
Brook, Sydney Wilkinson, Owens College and Manchester Royal Infirmary.
Edmunds, Percy, James, B.Sc., University College.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. Dührssen, *privat-docent* in Midwifery, has been granted the title of Professor.—*Budapest:* Dr. Janny, *privat-docent* in Surgery, has been granted the title of Professor.—*Innsbruck:* Dr. J. Nevinny has been promoted to the Ordinary Professorship of Pharmacology.—*Kiel:* Dr. K. A. Bier has been appointed Extraordinary Professor of Surgery.—*Palermo:* Dr. G. Rummo of Naples has been appointed Professor of Clinical Medicine: Dr. A. Monti of Pavia has been appointed Professor of General Pathology.—*Cracow:* Dr. B. Wicherkiewicz of Posen has been appointed to the chair of Ophthalmology.—*Munich:* Dr. Ludwig von Stubenrauch has been recognised as *privat-docent* in Surgery.

FOOTBALL CASUALTIES.—On Saturday last, during a match between two local clubs on the Bishop's Wood estate, Highgate, a player fractured his left leg.—In a match between the Cheltenham College and Clifton teams, a member of the latter team sustained severe contusions, and was admitted to the Cheltenham Hospital.—On Monday last, in the progress of a match at Tralee, a player, aged twenty-three years, after a scrimmage fell and died immediately.

TESTIMONIAL TO A MEDICAL MAN.—On Dec. 7th a meeting of about 300 friends and patients was held at the Lordship-lane Hall, Dulwich, S.E., to present Mr. John Rand, F.R.C.S. Eng., with his portrait on the occasion of his retirement from practice. The chairman, Mr. Matthew Wallace, J.P., said "this meeting and presentation were the result of a spontaneous expression of feeling showing the great regard, affection, and respect which were felt for Mr. and Mrs. Rand, not only in his professional but in their social and public life during the twenty-six busy years of their residence and work in Dulwich." The excellent portrait was the work of Mr. W. H. Margetson of Coventry Park.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Almeida Couto, Professor of Clinical Medicine in the University of Bahia.—Dr. Jas. E. Garretson, Emeritus Professor of Surgery in the Medico-Chirurgical College of Philadelphia.—Dr. Popoff, Extraordinary Professor of Physiology in the University of Dorpat.—Dr. Chas. F. Hersman, Professor of Clinical Medicine in the Missouri Medical College, St. Louis.—Dr. A. de Cerqueira Pinto, formerly Professor of Organic Chemistry in Bahia.—Dr. Bourienne, Professor of Clinical Midwifery in Caen.—Dr. Teichmann, formerly Professor of Anatomy in Cracow.—Dr. Ludwig Rütimeyer, formerly Professor of Comparative Anatomy in Basle.—Dr. H. Schmid, *privat-docent* in Odontology in Prague.

DIPHTHERIA IN LONDON.—The week ended Dec. 7th saw fatal diphtheria in London once again greatly in excess of the decennial average for the forty-ninth week. Last week the registered deaths in London numbered 69, as compared with 61, 69, and 63 in the preceding three weeks. The decennial average for the week in the years 1885–94 was exceeded by 25. The weekly average of deaths from the diseases in London during the period, Oct. 5th to Dec. 7th, was 65, as against 19 for the same period ten years ago. In the forty-ninth week of 1892 the registered deaths reached a total of 58, this being as many as 27 in excess of the decennial average 1882–91, and also the highest total on record. It will thus be seen how great have been the strides made by the disease of late. The deaths last week were all in young persons aged under twenty years. The sanitary areas credited with the largest share of the deaths were Greenwich with 8, Lambeth with 6, Hackney and Islington each with 5, and Camberwell and Clerkenwell each with 4 deaths. The malady seems to have shown some little disposition to diminish in amount, but not in intensity. Last week 114 cases were admitted to hospitals of the Metropolitan Asylums Board, against 104, 103, and 86 in the three preceding weeks; and the patients remaining under treatment on Saturday last numbered 694, as against 678, 688, and 691 on preceding Saturdays. The northern union of Edmonton and the West Ham Union had each of them experience of fatal diphtheria last week.

BOOKS, ETC., RECEIVED.

ALLENSON, H. R., Paternoster-row, London, E.C.
Demon Possession. By the Rev. J. L. Nevins. 1895. Price 7s. 6d.

BAILLIÈRE, TINDALL, AND COX, King William-street, Strand, London.
Adherent Pericardium. By J. F. H. Broadbent, M.D., M.R.C.P. 1895. pp. 126. Price 3s. 6d.
Modern Microscopy. By M. J. Cross and M. J. Cole. Second Edition. 1895. pp. 182. Price 3s. 6d.

BENTLEY, R. AND SON, London.
At the Court of the Amir; a Narrative. By John A. Gray, M.B. Lond. 1895. pp. 523.

BLACK, ADAM AND CHAS., Soho-square, London.
Introduction to the Study of Fungi: Their Organography, Classification and Distribution. By M. C. Cooke, M.A., LL.D., A.L.S. 1895. pp. 360. Price 14s.

BRAUMÜLLER, W., Wien und Leipzig.
Archiv für Dermatologie und Syphilis. 33. Band, 1. u. 2. Heft. 1895.

CHURCHILL, J. & A., New Burlington-street, London.
Transactions of the Ophthalmological Society of the United Kingdom. Vol. xv. Session 1894-5. With List of Officers, Members, &c. 1895. Price 12s. 6d.

GOVERNMENT PRINTING OFFICE, Washington.
Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and Subjects. Vol. XVI. W—Zythus. 1895.
Alphabetical List of Abbreviations of Titles of Medical Periodicals employed in the Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. From Vol. I. to Vol. XVI., inclusive. 1895.

KIMPTON, H., High Holborn, London; and HIRSCHFELD BROS., Fetter-lane, London.
Diseases of the Chest, Throat, and Nasal Cavities. By E. F. Ingals, A.M., M.D. Third Edition. Illustrated. pp. 686. Price 21s. net.

LEDGER, SMITH, AND CO., St. Mary Axe, London.
The Medical Digest, or Busy Practitioner's Vade-mecum. Appendix, including the years 1891-2-3-4, and to August, 1895. By R. Neale, M.D. London. 1895.

LEWIS, H. K., Gower-street, London, W.C.
The Treatment of Pulmonary Consumption. A Practical Manual. By V. D. Harris, M.D. Lond., F.R.C.P., and E. C. Beale, M.A., M.B. Cantab., F.R.U.P. 1895. pp. 483. Price 10s. 6d.

LONGMANS, GREEN AND CO., London.
Transactions of the Clinical Society of London. Vol. xxviii. 1895. pp. 326.
Hygiene. By J. L. Notter, M.A., M.D. Dubl., and R. H. Firth, F.R.C.S. 1895. Second Edition. 1895. pp. 433. Price 3s. 6d.

LYON, J. B., State Printer, Albany.
State of New York. State Commission in Lunacy. Sixth Annual Report. Oct. 1st, 1895 to Sept. 30th, 1894.

METHUEN AND CO., Essex-street, London, W.C.
The Vaccination Question. By A. W. Hutton, M.A. 1895. pp. 195. Price 1s. 6d.
The Housing of the Working Classes. By E. Bowmaker, M.D. 1895. pp. 186. Price 2s. 6d.

NUTT, DAVID, Strand, London.
Katawampus: its Treatment and Cure. By His Honour Judge E. A. Parry. Illustrated by A. Macgregor. 1895. pp. 95.

PHILIP GEO. AND SON, Fleet-street, London, E.C.
The Anatomy of the Human Head and Neck. Illustrated by means of Superimposed Plates. By Dr. Schmidt. English Edition by William S. Furneaux. Price 2s. 6d. net.

PENTLAND, Y. J., Edinburgh.
Atlas of the Diseases of the Skin. By H. Radcliffe Crocker, M.D., F.R.C.P. Fasciculus 13.

REBMAN PUBLISHING COMPY., Adam-street, Strand, London, W.C.
Annual of the Universal Medical Sciences. Edited by Chas. E. Sajous, M.D., and others. Illustrated. Vols. i. to v. 1895.

SAUNDERS, W. B., Walnut-street, Philadelphia.
A Manual of Syphilis and the Venereal Diseases. By J. N. Hyde and F. H. Montgomery, M.D. Illustrated. 1895. pp. 618.

SCIENTIFIC PRESS, Strand, London.
Nursing, its Theory and Practice. By P. G. Lewis, M.D., M.R.C.S. Eighth Edition. 1895. pp. 371. Price 3s. 6d.

SOCIÉTÉ D'ÉDITIONS SCIENTIFIQUES, Paris.
L'Hypnotisme Scientifique. Par Dr. Crocq fils. Introduction, Professeur Pitres. 1895.
Précis de la Vaccine et de la Vaccination Moderne. Par Dr. M. Hublé. Tomes I et II. 1895.
Les Variations de la Mortalité à Paris: leur Cause Météorologique. Par Dr. F. Chiais.

SMITH, ELDER AND CO., Waterloo-place, London.
Medical Diagnosis with special reference to Practical Medicine. By J. M. Da Costa, M.D., LL.D. Illustrated. Eighth Edition. 1896. pp. 1104. Price 24s.

SWAN SONNENSCHEIN AND CO., Paternoster-square, London, E.C.
Parasitism, Organic and Social. By J. Massart and E. Vandervelde. Translated by W. MacDonald. Revised by J. A. Thomson. 1895. pp. 122. Price 2s. 6d.

UNWIN, T. F., Paternoster-square, London, E.C.
Among the Gnomes. By Franz Hartmann, M.D. Illustrated. 1895. pp. 272. Price 5s.
The Chain of Gold. By S. O'Grady. Illustrated. 1895. pp. 304. Price 5s.
Inmates of my House and Garden. By Mrs. Brightwen. Illustrated. 1895. pp. 277. Price 3s. 6d.
Pax and Carlino: a Story. By E. Beckman. Illustrated. 1894. pp. 196. Price 2s. 6d.
Criminal Sociology. By Enrico Ferri. 1895. pp. 284. Price 6s.
Toxin: A Sketch. By Ouida. 1895. Price 1s. 6d.

WHITTAKER AND CO., White Hart-street, Paternoster-square, London.
The Chemists' Compendium. Compiled by C. J. S. Thompson. 1896. Price 2s. 6d. net.

WHITAKER, J., AND SONS, Warwick-lane, London, E.C.
An Almanack for 1895. By Joseph Whitaker, F.S.A.

WILSON, J. & SON, Cambridge, U.S.A.
Medical and Surgical Report of The Children's Hospital, Boston. 1889-1894. Edited by F. M. Rotch, M.D., and H. L. Burrell, M.D. 1895. pp. 367.

The Royal London Ophthalmic Hospital Reports; vol. xiv., Part I.; Oct. 1895 (J. & A. Churchill, New Burlington-street, London).—Anatomischer Atlas; von Professor Dr. A. D. Rosa, Dr. C. Toldt, and others; zweite Lieferung; Bogen 11-20; (Urban und Schwarzenberg, Wien und Leipzig, 1896).—Report upon the Condition of Irish Union Hospitals; by T. H. Moorhead, M.D.; reprint (Irish Medical Association, Dublin; 1895).—Annales Suisses des Sciences Médicales; livraisons 2-8 (Carl Sallmann, Basel, 1895).—Die Behandlung der Gaumenspalten, mit besonderer Berücksichtigung der Prothesen mit Korkkern; von H. Brugger (Carl Sallmann, Basel, 1895).—Ueber die Therapie des Tetanus; von Professor Sahli (Carl Sallmann, Basel, 1895).—Undersogelser og Forslag angaaende Arbeiderstandens Boliger i Christiania; ved Axel Holst (I. Chr. Gundersens Bogtrykkeri, H. Auth. E. Gundersen, Christiania, 1895).—From Hazel, Watson, and Viney, Medical Stationers, Long Acre, London, W.C.: Smith's Physicians' and Surgeons' Visiting List Diary, Almanack, and Book of Engagements for 1896, fiftieth year, No. 3 edition and No. 5 edition.—From Cassell and Co., London: Lett's Office Diaries and Almanacs, Nos. 1 and 8, for 1896; also Lett's Medical Diaries for 1896 (three copies).—Dermatologie: Dermatoses Inflammatoires; par L. Brocq et L. Jacquet (G. Masson, Paris).—Annales de Dermatologie et de Syphiligraphie; troisième série, tome vi., No. 11; Novembre, 1895 (G. Masson, Paris).—Archiv für Pathologische Anatomie und Physiologie und für Klinische Medicin; von R. Virchow; Band cxlii., Heft 3 (G. Reimer, Berlin, 1895).—Catechism Series; Midwifery; Parts I. and II. (E. & S. Livingstone, Edinburgh; price 1s. each net).—The British and Colonial Druggist's Diary, 1896. (T. and H. Smith and Co., Edinburgh, and Worship-street, London, E.C.).—Magazines for December: The Picture Magazine, Illustrated English Magazine, The Strand Magazine, Boys' Own Paper, Girls' Own Paper, Leisure Hour, Sunday at Home, Pall Mall Magazine, Friendly Greetings, Knowledge, Woman's Life, The Gymnast and Athletic Review.—Christmas numbers, 1895: Cassell's Yule Tide, and Christmas Annual, Chapman's Magazine, Pears' Annual, The World, Christmas Annual, The Queen, Black and White, The Happy Home, The Strand Christmas Double Number.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BROWN, JOHN, M.D., Ch.B. Vict., D.S.Sc., L.R.C.P. Lond., has been re-appointed Medical Officer of Health for the Borough of Bacup.

BEATTIE, THOMAS, M.B., B.S. Durh., has been appointed Pathologist to the Royal Infirmary, Newcastle, vice Drummond, resigned.

BYERS, HENRY STAGG, L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Stockton and Thornsby Hospital, vice H. E. Hoffmeister, resigned.

CHAMBERLAIN, E. F., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Banstead Sanitary District of the Epsom Union.

CLARIDGE, H. A. H., M.B., B.S. Durh., has been appointed Medical Officer for the North Canes Sanitary District of the Cannock Union.

DAUBER, J. H., M.A., M.B., B.Ch. Oxon., M.R.C.P., M.R.C.S., L.S.A., has been appointed Honorary Assistant Physician to the Hospital for Women, Soho.

DODGE, M. J., M.R.C.S., has been appointed Medical Officer for the Fourth Sanitary District of the Wells Union.

FRASER, PETER, M.D., C.M. Edin., has been appointed Medical Officer of Health by the Carnarvon Joint Sanitary Authority.

FULTON, WM., M.B., C.M. Glasg., has been appointed Medical Officer of Health for Stevenston, Ayrshire.

GARSTANG, T. W. H., M.R.C.S., has been appointed Medical Officer of Health by the Knutsford Urban District Council.

GORDON, J. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Sithney Sanitary District of the Helston Union.

HARKER, W. E., M.B., B.S. Durh., has been appointed Medical Officer of Health to the Newcastle-upon-Tyne Port Sanitary Authority.

HEATH, H. T., L.R.C.P. Edin., L.R.C.S. Irel., has been appointed Medical Officer of Health for the Mansfield Woodhouse Urban Sanitary District.

HERMON, J. M., M.B., C.M. Edin., has been appointed Medical Officer for the Sharlston Sanitary District of the Wakefield Union.

KEMP, BENJN., M.R.C.S., has been re-appointed Medical Officer of Health by the Horbury Urban District Council.

LISTER, THOS. D., M.D., B.S. Lond., F.R.C.S. Eng., has been appointed Honorary Surgeon to the Westminster General Dispensary.

MACKENZIE, W. S., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health by the Altofts Urban District Council.

MACKISACK, H. L., M.D., M.Ch. Irel., has been appointed Registrar to the Royal Hospital, Belfast, vice Calwell.

MIDDLEBROOKE, E., L.S.A., L.M. Dubl., has been appointed Medical Officer for the St. Ives Union.

MORGAN, J., M.R.C.S., has been appointed Medical Officer for the Rheidol Sanitary District of the Aberystwith Union.

MUNN, PATRICK I., M.B., C.M. Edin., has been appointed Junior Resident House Surgeon to the Dumfries and Galloway Royal Infirmary.

NORRIS, O., L.R.C.P., L.M. Irel., has been appointed Medical Officer of Health for the Sherburn Rural Sanitary District, vice R. Cuff.

O'BRIEN, C. M., M.B., L.R.C.S. Irel., has been appointed Medical Attendant to the Staff of the London and North-Western Railway Company's Depôt, Dublin.

PATRICK, J., M.B., B.Ch. Irel., has been appointed Assistant Medical Officer for the Purdystown Asylum.

PHILLIPS, E. V., L.R.C.P. Lond., M.R.C.S., D.P.H. R.C.S. Irel., has been appointed Medical Officer of Health to the Oxenden Rural Sanitary District.

POTTS, L., M.R.C.S., has been appointed Medical Officer of Health for Headley Sanitary District of the Epsom Union.

SENIOR, ARTHUR, M.B., B.C. Camb., has been appointed Medical Officer of Health by the Esher and the Dittons Urban District Council.

STEVENS, F. J., M.R.C.S., D.P.H. R.C.P.S. Eng., has been appointed Medical Officer of Health for the Camberwell Sanitary District.

STEELE, W. C., M.B., C.M. Glasg., has been appointed Medical Officer for the Seventh Sanitary District of the Tendring Union.

VICKERY, WILLIAM HENRY, F.R.C.S. Eng., has been appointed Surgical Registrar to the Newcastle Infirmary.

WALLINGTON, W. T., L.S.A., has been appointed Medical Officer for the Bushberry Sanitary District of the Cannock Union.

WEBB, C. CAREW, M.B., B.C. Cantab., has been appointed Dispensary Surgeon to the Bradford Infirmary, vice A. Rutherford, resigned.

WILD, R. B., M.D Lond., M.Sc. Vict., has been appointed Honorary Assistant Physician and Medical Superintendent of the Cancer Pavilion and Home, Manchester.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BATH ROYAL UNITED HOSPITAL.—Resident Medical Officer for three years. Salary £100 per annum, with board, lodging, and washing.

BRISTOL INCORPORATION.—Medical Officer for the Workhouse at Stapleton. Salary, which is to cover the cost of any substitute in case of temporary absence from duties, £250 per annum, with unfurnished residence. Fees for vaccination cases allowed. Applications to the Clerk to the Guardians, St. Peter's Hospital, Bristol.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Resident House Surgeon and Resident House Physician, for twelve months. Salary of the House Surgeon £100 per annum, and of the House Physician £80 per annum, with apartments and board in both cases.

DEVON COUNTY LUNATIC ASYLUM.—Assistant Medical Officer, unmarried. Salary £120 per annum, with board, lodgings, and washing. Applications to the Clerk to the Visitors, 9, Bedford-circus, Exeter.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—Assistant House Surgeon. Salary £50 per annum, with furnished apartments, board and washing.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Four qualified Clinical Assistants and eight unqualified Clinical Clerks in the Out-patient Department.

HULME DISPENSARY, Manchester.—Honorary Physician.

LIVERPOOL DISPENSARIES.—Assistant Surgeon, unmarried. Salary £80, to be increased to £90 per annum after the first year's service, with apartments, board, and attendance. Applications to the Secretary, 34, Moorfields, Liverpool.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT.—Second Assistant Medical Officer. Salary £80 per annum, to be increased by yearly increments of £10 to a maximum of £100, with rations, furnished apartments, and washing. Applications to the clerk to the Managers, Bromley, Middlesex, E.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Assistant House Surgeon for six months. Board, washing, and lodging provided in the institution.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant for six months. Board, lodging, and washing provided.

Births, Marriages, and Deaths.

BIRTHS.

BONAR.—At his residence, 114, Via del Babuino, Piazza di Spagna, Rome, on Dec. 8th, the wife of Dr. Thomson Bonar, of a son.

CHAWNER.—On Dec. 6th, at Hill House, Clay-cross, the wife of Alfred Chawner, L.R.C.P. Lond., M.R.C.S. Eng., of a daughter.

RENDLE.—On Dec. 4th, at 7, Buckland-terrace, Plymouth, the wife of C. E. Russel Rendle, M.R.C.S., L.R.C.P., of a son.

SCOTT.—On Nov. 29th, at Finstall-park, Bromsgrove, Worcestershire, the wife of Sidney Jebb Scott, M.A., M.B., F.R.G.S., of a daughter.

MARRIAGES.

NEWINGTON—SOUNDY.—On Dec. 4th, at St. Nicholas Church, Sutton, Surrey, C. W. H. Newington, M.R.C.S., L.R.C.P., son of the late S. W. Newington, surgeon, of Goodhurst, Kent, to Maud, daughter of the late W. B. Soundy, formerly of Redhill.

PETRIE—DE WOLF.—On Dec. 5th, at Christ Church, Lancaster-gate, W., Reginald Ogilvy Petrie, M.A., M.B., C.M Edin., of St. Andrews, N.B., to Ellen Lydia (Nellie), youngest daughter of the late James R. De Wolf, of the Salacres, Upton, Cheshire.

ROBERTS—PETLEY.—On Dec. 4th, at the Church of the Holy Trinity, Tulse-hill, Frank Ernest Roberts, M.R.C.S. Eng., of Tulse Dale, West Norwood, to Louisa, daughter of Joseph Petley, of Simla Lodge, Norwood-road, Herne-hill.

WHITEFORD—THORNE.—On Dec. 5th, at St. John's Episcopal Church, Greenock, James Harris Garcia Whiteford, B.A. Cantab., M.B., C.M. Ed., of Greenock, to Edith May, twin daughter of Thomas May Thorne, Wardwood, Greenock.

WINGATE—SOPER.—On Dec. 7th, at St. Andrew's Church, Ashley-place, Westminster, William Warburton Wingate, M.B., B.C. Camb., eldest son of the late William Wingate of Ludford Magna, Lincs., to Isabel Mary, daughter of William Soper, M.R.C.S.E., of Clapham-road.

DEATHS.

HAKE.—On Dec. 7th, at Southend, Essex, James Hake, M.R.C.S. Eng., L.R.C.P. Lond., aged 33.

PICKTHORN.—On Dec. 3rd, at Durban, Natal, T. Russel Pickthorn, Staff Surgeon R.N., aged 37.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births Marriages and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 12th, 1895.

Date.	Barometer reduced to Sea Level and 32° F	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp Shade	Min. Temp	Rainfall	Remarks at 9.30 A.M.
Dec. 6	29·41	N.W.	50	49	73	51	49	0·05	Raining
,, 7	29·58	N.W.	39	36	60	47	36	0·04	Fine
,, 8	30·07	N.W.	36	34	47	43	34	...	Fine
,, 9	29·95	S.W.	43	43	53	51	35	0·01	Raining.
,, 10	29·89	N.W.	45	43	56	48	42	0·05	Foggy
,, 11	30·04	S.E.	34	34	46	46	33	...	Foggy
,, 12	29·84	N.W.	41	40	55	44	34	0·11	Overcast

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—SOCIETY OF ARTS.—8 P.M. Mr. W. Worby Beaumont: Mechanical Road Carriages. (Cantor Lecture.)

TUESDAY.—PATHOLOGICAL SOCIETY OF LONDON.—Papers:—Dr. Peters: On the Varieties of Diphtheria Bacilli.—Mr. Eyre: On the Xerosis Bacillus.—Messrs. Kanthack and Stephens: The Escape of Diphtheria Bacilli into the Blood and Tissues. Card Specimens:—Dr. Weber: Heart from case of Angina Pectoris.—Dr. Snow: Colloid Carcinoma of Breast.—Dr. Lennox Browne: Malignant Growths of Tonsil.—Dr. Rolleston: Crateriform Ulcer.—Dr. Hugh Walsham: Tuberculous Liver with Lardaceous Disease.

SOCIETY OF ARTS.—4.30 P.M. Mr. Frank Cundall: Jamaica in the Past and Present.

WEDNESDAY.—SOCIETY OF ARTS.—8 P.M. Mr. John Southward: Machines for Composing Letter-press Printing Surfaces.

THURSDAY.—SOCIETY OF ANÆSTHETISTS (20, Hanover-square, W.).—8.30 P.M. Dr. R. W. Carter (Weymouth): A Precise and Scientific Method of Administering Chloroform and Ether, with demonstration of the inhalers by which these results are obtained.

HARVEIAN SOCIETY.—8.30 P.M. Dr. M. Handfield Jones: The Heart in its Relation to Pregnancy, Parturition, and the Puerperal State. (Harveian Lecture.)

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

WEDNESDAY.—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Beevor.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Percy Kidd: Demonstration of Laryngeal Tuberculosis.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Ichthyosis.

SATURDAY.—ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Pemphigus and Dermatitis Herpetiformis.

During the week marked copies of the following newspapers have been received:—*Eastern Morning News, South Australian Register, Cork Daily Herald, Halstead Times, Sydney Evening News, Enquire Within, South Wales Daily News, Birmingham Gazette, National Observer, North Star, City Press, Sheffield Independent, Builder, Times of India, Pioneer Mail, Citizen, Architect, Courrier de la Presse, Land and Water, Provincial Medical Journal, Indian Mirror, Nottingham Daily Express, Sanitary Record, Leeds Mercury, West Middlesex Standard, Weekly Free Press and Aberdeen Herald, Mining Journal, Bristol Mercury, Liverpool Daily Post, Reading Mercury, Local Government Chronicle, Hertfordshire Mercury, Yorkshire Post, Wigan Observer, Public Health, Solicitors' Journal, Daily Chronicle, Surrey Advertiser, Local Government Journal, Kentish Independent, Lancashire Daily Express, Health, Echo, Coventry Mercury, English Mechanic, Graphic, North British Daily Mail, Manchester Courier, West Middlesex Advertiser, Jackson's Oxford Journal, Folkestone Express, Public Opinion, Coventry Herald, Journalist, Dover Express, Liverpool Echo, Irish News, &c., &c.*

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

THE EMPLOYMENT OF UNQUALIFIED ASSISTANTS, ETC., AND THE RESOLUTIONS OF THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—In the advertising pages of THE LANCET (Nov. 16th, 1895) a notice, printed under the heading "Important Notices," a series of resolutions which have been from time to time passed by the General Medical Council in regard to "covering" unqualified persons and the employment of unqualified assistants, and which with your kind permission I would like to ask those of your readers who are more intimately acquainted with the matter to make clear to me.

In making this inquiry I may mention that my attention has been more fully drawn to the subject by the comments which, on various occasions, you have made in your esteemed paper about this custom, &c. When reading these I always ask myself what the objects of the resolutions of the General Medical Council are if these are not applicable to the very abuses which they are intended to defeat, with the result that I invariably find myself divided between two opinions—viz., either that the Council purposed the resolutions to be good jokes, or else to be laws enforceable and binding on all qualified members of the profession, but impracticable for want of definition; in fact, laws in name, but not in reality. To find out whether or not one, or other, or any, of these views is right, or if the resolutions are of any value whatsoever, considering the way in which very many qualified practitioners utilise without let or hindrance their unqualified assistants in the working of their practices and in opposition to the apparent intention of the resolutions, is what I wish to draw attention to.

In the first of the resolutions which were passed by the Council on Feb. 27th, 1883, the opinion is expressed that "A registered medical practitioner would render himself liable to the censure of the Medical Council in case of the employment of an unqualified assistant in the practice of medicine, surgery, or midwifery on behalf and for the benefit of such registered practitioner, either in complete substitution for his own services or under circumstances in which due personal supervision and control are not, or cannot be, exercised by the said registered practitioner." This law, as you may observe, was not accompanied by any attempt to make a formal definition of the "misconduct in question," nor were the remaining laws, enacted at the same time, construed in any sense so as to enlighten anyone as to their real meaning, or for the guidance of such persons as might feel disposed to lay cases of reasonably suspected infringements of them before their compilers for inquiry and judgment. If the resolutions are real, what wonder is it that unoffending practitioners, anxious for their own preservation and of others, seem so apathetic and indifferent in trying to bring this evil to an end, when they are handicapped by the Council's indefinite resolutions. For example, does the resolution sanction, or will the Council infallibly censure, a registered practitioner who, when going away on his holidays, say for a month, leaves his unqualified assistant to absolutely carry on and conduct his practice in his absence, or who allows his unqualified assistant, without any kind of personal supervision whatsoever, to treat patients all through their illnesses, and to "do surgery" both at home and at branches, and to sign "club" and other certificates (not death certificates), &c.? Also, is it justifiable for a public vaccinator to depute his unqualified helper to perform all or any of the public vaccinations and then return the certificates of such vaccinations as having been done "successfully by me"; or for a medical officer of health to send his unqualified assistant to inquire into the causes of, and to inspect cases of, infectious diseases notified by colleagues in his district; or for a principal to notify infectious diseases seen only by his unqualified assistant and then pocket the fee for doing so?

As to "covering," which is vaguely stated to be doing, or assisting in doing, or participating in doing, "any act which enables any unqualified person to practise as if he were duly qualified," what guarantee is there that a practitioner is liable to censure, or will be censured, who signs death certificates for patients seen only by his unqualified assistant, or for the latter to "fill in" in case of death occurring during his principal's absence from home on holidays, the principal, of course, having never visited the patient during his lifetime, or who merely "looked in" just before death, so as to be in a position to sign the death certificate if necessary, or who, when called into consultation by a "quack," meets him? Further, what of the unwritten prescribing, compounding, and booking of medicines by unqualified assistants?

In enumerating these acts I do not pretend to exhaust all the cases which might be brought forward in support of my charge of obscurity with which some of the principles on which our profession is based are enveloped. Sufficient, however, for my purpose have I quoted to show practically what a dead letter the resolutions of the Council are. I think the time has come for the sufferers to assert themselves and to try to compel by every fair means possible the Council to specify the misconduct in question.

Some persons will doubtless say, Why not forward reports of cases of suspected misdoings to be dealt with by the Council? Well, that course, I understand, has been pursued over and over again with a negative result, until now the mere mention of doing such a thing elicits the stock phrase, "Oh, what is the use of doing it, the Council won't do anything in the matter." If such an assertion be true, and is due, as stated, to a dislike to open the ball in any quarter lest by doing so persons in "high places," influential brethren and others holding important positions, &c., might in the general *mêlée* have to be assaulted, the sooner such a hugger-mugger policy is ended the better. Such a line of reasoning is suicidal. If every man cannot have his full pound of flesh by the present Council upholding consistently its own enactments—our rights and privileges—let us who are desirous of sustaining the character of our calling at least make an effort to rouse the Council from its slumbering, or else try if its members cannot be replaced by more practical men, and by men who will have the courage of their convictions.

I am, Sirs, yours faithfully,

Liverpool, Nov. 18th, 1895. R. HILL SHAW, M.B.

FLAGRANT ADVERTISEMENT.

To the Editors of THE LANCET.

SIRS,—For at least two years the enclosed advertisement has appeared weekly in the *People* newspaper. The label (also enclosed) is taken from a bottle of medicine supplied by the physician. The dispensary has painted upon the wooden portion of the front: "Dr. Fisher, M.R.C.S., L.R.C.P." The wire window-blinds are inscribed: "Ear, Liver, and Nervous Disorders." On looking through the window, may be seen two framed diplomas, and a notice—"This is not a free dispensary." No one resides upon the premises. In the neighbourhood a qualified gentleman named Fisher, holding the diplomas M.R.C.S. Eng., L.R.C.P. Ed., and L.S.A., does reside, as will be seen by referring to the Medical Directory.

I should be glad of an opinion from you as to whether it is justifiable for any medical man to issue such labels as the one I enclose, stating his fees. As to the advertisement in the newspaper I have named, I need say nothing. I am, Sirs, yours faithfully,

Dec. 10th, 1895. OBSERVER.

*** We subjoin the advertisement, which, it will be seen, does not mention the name of the medical man, but gives the address, while the medicine label gives the same address and the name. We consider the whole to constitute what our correspondent has called it—a case of "flagrant advertisement," but we find no Dr. D. Fisher in the current Medical Directory or Register.—ED. L.

[*Advertisement.*]

NERVOUS DEBILITY DISPENSARY,
268, CITY-ROAD, E.C. (on the Canal Bridge).

NERVOUS DEAFNESS, Dyspepsia, Noises in Head, Loss of Vigour, and Genito-Urinary Diseases, &c., especially treated. THE PHYSICIAN attends 11.0 to 12.0 and 7.0 to 9.0; Sundays, 11.0 to 12.0 only. Weekly Subscription, 1s. to 2s. 6d. ADVICE AND MEDICINES BY POST.—"A genuine and successful institution."—MEDICAL REVIEW.

[*Label.*]

PROVIDENT DISPENSARY, 268, CITY ROAD, E.C.,
Adjoining the Macclesfield Arms, Canal Bridge.
PHYSICIAN—DR. D. FISHER.

Two Table Spoonfuls to be taken every four hours.

Attendance from 11 till 12 a.m., and 7 till 9 p.m.
Sundays from 10.30 till 12 a.m. only.
ADVICE AND MEDICINE SIXPENCE.
HOME VISITATION AND MEDICINE 1/6.
N.B.—Notice of cases requiring visiting must be given before 12 a.m.

INFANT MORTALITY.

M.O.H.—The only possible method for the calculation of infant mortality, that is, of deaths under the age of one year, in any locality during any given period is to ascertain the proportion which such deaths bear to the births registered in the same locality during the same period. Any excess in this calculated proportion over the rate of 100 per 1000, or 10 per cent., represents excessive infant mortality in a small town. It should, however, be remembered that in a small population a month is far too short a period for the calculation of a trustworthy birth- or death-rate. The Registrar-General does not calculate or publish rates of infant mortality for any small towns; but in his quarterly return is invariably published the rate of infant mortality in each of a hundred English and Welsh towns, not one of which, however, has a population less than 30,0000 persons. This return also gives the mean rate of infant mortality in each quarter in England and Wales, and in England and Wales exclusive of the 100 large towns separately dealt with.

A CORRESPONDENT sends us the following advertisement from the *Scotsman* of Dec. 10th:—

> DOCTOR wanted at once for a country district where a large practice is obtainable. Applications, with testimonials, to be sent to A., 9, Scotsman Office, Aberdeen.

He considers, as we do, that for a medical man to post testimonials of his fitness to undertake a practice to an anonymous individual at the office of a newspaper would be a most ill-advised proceeding.

Mr. G. H. Broadbent's communication has been received and shall have our attention.

T. R. H.—The subject of this letter is not worth powder and shot.

THE CLIMATE OF THE EAST COAST OF AFRICA.

To the Editors of THE LANCET.

SIRS,—Can any of your readers let me know quickly if it would be an unhealthy voyage from Port Natal along the East Coast of Africa to the Island of Zanzibar? Myself and some friends, one a delicate person, propose to make the trip, and we would probably be there in March next. We would coast it in a large steamer, calling at Delagoa Bay and Beira, these two places at least. If there would be any considerable danger to health from fever or any such causes, we would give up the idea. If you could kindly let me know I would be exceedingly obliged, as we find a difficulty in obtaining reliable information on this point.

I am, Sirs, yours respectfully,

Dec. 10th, 1895. VOYAGER.

"ADVERTISING."

To the Editors of THE LANCET.

SIRS,—Referring to the accusation brought against me by an inquiring gentleman of Canonbury, I shall be glad if you will publish the following: The cards copied in your journal were sent by me to the members of a society (club) to which I am the medical officer, and to no one else. It is therefore quite untrue to suggest that they were "circulated freely," as they were addressed to the members of this society only (the Hebrew Tontine Benefit Society)—i.e., to my own patients, and enclosed in envelopes.

I am, Sirs, yours obediently,

Houndsditch, E.C., Dec. 13th, 1895. M. BERNSTEIN, M.D.

A. B.—It is doubtful if our correspondent could recover his fee in a county court, though he has undoubtedly been treated badly. How far he would have a good case legally would depend upon the exact way in which the arrangement was made and the amount of clear proof that he could bring in support of its existence. While sympathising we are strongly of opinion that whatever the circumstances no such action should be brought.

"THE BRITISH MEDICAL BENEVOLENT FUND."

To the Editors of THE LANCET.

SIRS,—May I ask you kindly to allow me to acknowledge through your columns the following additional donations to the British Medical Benevolent Fund?

Mr. Kaland...	£1	1	0	"A Friend," per Dr. Barnes of Carlisle ...	£100	0	0
Mr. Herbert Allingham	2	2	0				
Dr. Gervis...	10	10	0				

I am, Sirs, yours faithfully,

W. H. BROADBENT.

84, Brook-street, Grosvenor-square, W., Dec. 11th, 1895.

A QUERY.

To the Editors of THE LANCET.

SIRS,—Will any of your readers tell me which is the best form in which to administer strychnine hypodermically for snake-bite? It is very insoluble, and the necessary dose would mean a large quantity of fluid. What has been found the best dose?

I am, Sirs, yours truly,

Dec. 9th, 1895. ZAMBAAN.

MEDICAL ADVERTISEMENTS IN AUSTRALIA.

CANCER and TUMOURS.—A wonderful and natural remedy for cancers and tumours. Pamphlet on the subject post-free on receipt of 4*d.* in stamps. References.—Apply, A. M'Kee and Co., City Medical Hall, Adelaide-street, Brisbane.

DISTRICT MEDICAL CLUB, 515, Elizabeth-street, N., Market-buildings, daily 2 to 5 and 7 to 9 P.M. All diseases treated. Advice and medicine, 2*s.* 6*d.*—Dr. Maloney, surgeon.

ELECTRIC PILLS.—For Nervous Debility, Weakness, Incapacity, Loss of Vital Power, &c. (Dr. Laseurs, M.D., Paris, one of the Greatest Specialists in the world). Electric Pills are the most speedy and the most powerful remedy in the world. One box will be sufficient, and in even the weakest, the oldest, the most shattered, works a miracle, while perfectly harmless, leaving no bad after effects. Guaranteed never to fail. Worth their weight in gold. Price, 10*s.* 6*d.*, post free, from the sole agent, W. PARSONS, Chemist, 68, Bourke-street, E. Melbourne.

NERVOUS DISEASES! SYPHILIS!! VIRILITY!!!—Dr. L. L. SMITH, L.S.A. Lond., the only legally qualified medical man advertising! To those suffering from early practices. To those about to marry. To those married yet childless. To the Nervous. To the Prostrated. To those who have lost all energy. To those suffering from loco motor ataxis and paralysis. To those suffering from cerebro spinal irritation. To the Impotent!!! To those whose blood contains impurities. CONSULT DR. L. L. SMITH, 41, Collins-street.—Fee by letter, £1. Personal Consultation, Mornings and Evenings. Fee, £1 1*s.*, including two days' medicine.

NERVOUS SUFFERERS.—A new discovery; the very worst of cases; all nervous secret disease.—Jason, Box 124, G.P.O., Melb.

SURGEON LANGSTON, M.R.C.S. Eng., 121, Collins-street East. Every man who is weak, nervous and debilitated should consult this reliable old surgeon, over forty years' experience. Nervous and Physical Debility, Exhausted Vitality, Premature Decline, and all diseases and weaknesses of men. Consultation free, expert treatment, inviolable secrecy, and certain cure. Hours, 10 to 4 daily. Monday, Wednesday, and Saturday evenings, 7 to 9. SURGEON LANGSTON, M.R.C.S., 121, Collins-street, Melbourne.

THE POOREST MAN in the country can write to us and receive by return mail (free of charge) in a plain, sealed envelope, full directions for a speedy, permanent, and private home cure for all nervous and debilitating diseases.—Address to Foreign Novelty and Agency, P.O. Box 347, Sydney.

The above extraordinary advertisements speak for themselves. We are told when commenting on this kind of thing that it occurs away from home, and that under different conditions a different code of ethics must prevail; but that this is not so is proved by the fact that most of our colonial brethren shrink from advertising and hold fast by the honourable tenets of the profession. What most can do all can do, and the conduct of practitioners who indulge in this grossly unprofessional method of bringing themselves before the public is most reprehensible. The M.R.C.S. Eng. and the L.S.A. Lond. have got into company which should make them blush.

Medicus has not given us sufficient particulars to warrant our giving him a definite answer. Who said what? And when? We presume that whatever the occasion the medical officer had the right of reply, and that his defence would receive the same publicity as the reflections upon him.

Inter Cornua has placed before us two alternatives. He appears to consider that either way he must be wrong. We should say that either way he would be right, and that style which he uses is a matter for his private taste.

"THE PHONENDOSCOPE."

To the Editors of THE LANCET.

SIRS,—In reply to your correspondent, "W.," in THE LANCET of Nov. 30th, we shall be pleased to send him a phonendoscope on trial for a few days; or it can be seen and tried at any time at either of our addresses. We are, Sirs, yours faithfully,

55, Grosvenor-street, W., Dec. 6th, 1895. HOOPER AND CO.

THE BEST ANGLO-FRENCH MEDICAL DICTIONARY?

To the Editors of THE LANCET.

SIRS,—Can any of your readers let me know through the columns of THE LANCET which is the best English and French dictionary of medical terms? I am, Sirs, yours faithfully,

Dec. 4th, 1895. C. S. J.

THE TROPICAL DISEASES OF WEST AFRICA.

To the Editors of THE LANCET.

SIRS,—Would you let me appeal to your readers to furnish me with the title of a good text-book of tropical diseases as met with in West Africa. I am, Sirs, yours truly,

Dec. 11th. A. A. S.

ERRATUM.—In our review of Dr. Jackson's book, "Skiascopy and its Practical Application to the Study of Refraction," which appeared in our columns on Nov. 30th, we omitted to mention that Messrs. Kegan Paul, Trench, Trübner, & Co., Limited, are the London agents for the publication.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Communications, Letters, &c., have been received from—

A.—Dr. A. G. Auld, Glasgow; Dr. J. H. Abram, Liverpool; Dr. W. W. Baldwin, Florence; Mr. Jas. Aitken, Aberdeen; Mons. J. Astier, Paris; Apothecaries' Society, Lond., Sec. of.

B.—Dr. C. Bodon, Berlin; Dr. I. Banks, Aberdare; Dr. L. H. Bennett, East Ilsley; Mr. W. Bernard, Londonderry; Mr. G. H. Broadbent, Manchester; Mr. C. Birchall, Liverpool; Messrs. Burgoyne, Burbidges, & Co, Lond.; Messrs. Burroughs, Wellcome, and Co., Lond.; Messrs. Blondeau et Cie., Lond.; Bury Dispensary Hospital, Sec. of; Bristol Incorporation, Clerk to the Guardians of.

C.—Dr. W. G. Curgenven, Derby; Mr. A. C. Champati, Patna City; Mr. E. Cordery, Lond.; Mr. J. P. Cassidy, Holloway; Messrs. T. Clark and Co., Lond.; Messrs. Clarke, Son, and Platt, Lond.; Messrs. A. H. Cox and Co, Brighton; Messrs. T. Cook and Son, Lond.; Clapham Maternity Hospital, Hon. Sec. of.

D.—Dr. T. Duka, Kensington; Mr. A. Denman, Beaconsfield; Mr. W. E. Dawson, Walton-on-the-Naze; Messrs. J. Davey and Co., Lond.; Messrs. Downie, Aiton, and Aiton, Glasgow; Messrs. Down Bros., Lond.; Messrs. Dawson and Sons, Lond.; Derbyshire Royal Infirmary, Sec. of; Devonshire Hospital, Buxton, Sec. of.

E.—Dr. H. M. Earle, Jullundur, Punjab; Mr. J. R. Essex, Pontypool; Messrs. Evans, Son, and Co., Lond.; Messrs. Edwards, Son, and Co., Birmingham.

F.—Dr. T. Fisher, Greenwich; Mr. J. B. Fry, Esher; Mr. N. A. Hay Forbes, Tunbridge Wells.

G.—Dr. W. H. Gilbert, Baden Baden; Messrs. Gerrard and Son., Lond.; Gas Light and Coke Co., Lond, Senior Inspector of; Great Eastern Railway, Lond., Manager of; Genuine, Lond.

H.—Dr. J. L. G. Haskett, Lond.; Dr. J. Holmes, Whitefield; Dr. C. N. Hewitt, St. Paul, Minn.; Mr. E. S. Hartland, Highgarth; Mr. J. Heywood, Manchester; Mr. G. F. Helm, Truro; Mr. G. Hermanni, jun, Lond.; Mr. J. R. Hill, Chapeltown; Mr. A. B. Hicks, Lond.; Messrs. Hayes and Son, Stamford; Messrs. W. Hatchman and Co., Lond.; Hulme Dispensary, Manchester, Hon. Sec. of.

I.—Miss Inman, North Scarle; Islington Medical Society, Hon. Sec. of; Inter Cornua, Carlisle.

J.—Dr. M. Jackson, Barnstaple; Jeyes' Sanitary Compounds Co., Lond.

K.—Dr. H. R. Kenwood, Lond.; Dr. W. Kidd, Blackheath; Dr. W. D. Kingdon, Colyton; Dr. C. J. Kauffmann, Manchester; Közgazdasági Napló, Administration des.

L.—Dr. A. B. Lazarus, Melbourne; Mr. W. W. Lake, Guildford; Leeds and West Riding Medico-Chirurgical Society, Sec. of; *Land and Water*, Lond.; Liquor Carnis Co., Aston Clinton.

M.—Dr. L. W. Marshall, Nottingham; Dr. W. Murrell, Lond.; Dr. P. W. Marriott, Mentone; Dr. W. McDonald, Waterloo, Liverpool; Mr. C. Mansell Moullin, Lond.; Mr. O. G. R. McWilliams, Teignmouth; Messrs. J. Murdoch and Co., Lond.; Mason College, Birmingham, Librarian of; Medical Magazine Co., Lond.; Middlesex Hospital Medical School, Hon. Sec. of; Maltine Manufacturing Co., Lond.; Medicus, Weymouth; M.B., C.M., Melbourne.

N.—Dr. E. Norton, Folkestone.

O.—Od Chemical Co., New York; Ops, Lond.

P.—Dr. D. Paterson, Cardiff; Dr. Palmer, Lond.; Messrs. Partridge and Co., Eastbourne.

R.—Dr. J. W. Rolph, Pahang; Dr. R. D. Rudolf, Bengal; Mr. E. Ringrose, Newmarket-on-Trent; Mr. A. W. M. Robson, Leeds; Mr. E. G. Rivers, Lond.; Mr. H. B. Robertson, Corwen; Messrs. Ridges and Sons, Wolverhampton; Roy. United Hosp., Bath, Sec. of; Roy. Med. and Chirurgical Soc., Lond., Sec. of; Royal Institute of Painters, Lond., Sec. of; Royal Meteorological Society, Lond., Assistant Sec. of.

S.—Dr. J. G. Smith, Clifton; Dr. C. E. Stanger, Tonbridge; Dr. S. Suzuki, Tokio; Professor Sherrington, Liverpool; Mr. H. Sell, Lond.; Mr. H. W. Scriven, Lond.; Mr. J. H. Spreat, jun., Burrington; Mr. F. T. Smith, Lond.; Mr. J. M. Schley, New York; Mr. Brajenda Nath Sen, Bengal; Mr. H. Silverlock, Lond.; Mr. F. A. Southam, Manchester; Mr. Y. Saneyoski, Tokio; Mr. B. W. Swendon, Great Smeaton; Messrs. Street Bros., London; Messrs. Street and Co., Lond.; Messrs. J. P. Segg and Co., Lond; Messrs. Stubbs, Lond.; Sanitas Co., Lond., Managing Director of; Surgical Aid Society, Lond., Sec. of.; Seamen's Hospital Soc., Lond., Sec. of.

T.—Dr. A. J. H. Thornton, Robben Island; Dr. H. Tibbits, Lond.; Dr. A. Duxford, Boston Limes; Dr. J. C. Thresh, Chelmsford; Mrs. Turner, Lond.; Mrs. B. Thomson, Ilkley; Taunton and Somerset Hospital, House Surgeon of; Thorax, Lond.

U.—University of London, Registrar of.

V.—Mr. W. Van Praagh, Lond.; Victorian, Lond.; Voyager, West Brighton.

W.—Dr. J. K. Warry, Hampstead; Dr. W. W. Webb, Netley Abbey; Mr. A. E. Watson, Torquay; Mr. T. M. Watt, Hovingham; Mr. G. Williams, Liverpool; Mr. T. R. Woolard, Wickham Brook; Miss Wilkinson, Lond.; Messrs. J. Wright and Co., Bristol; Waterford Public Library, Sec. of; Wolverhampton Hospital, Sec. of

Letters, each with enclosure, are also acknowledged from—

A.—Dr. E. Allen, Hawes; Dr. J. H. Abram, Liverpool; Dr. J. Adams, West Malling; Dr. A. E. Asb, Stoke Ville; Mr. E. Appleton, Stockton-on-Tees; Messrs. Armour and Co., Lond.; A. H. N., Lond.; Anthimus, Lond.

B.—Dr. T. L. Brunton, Lond.; Dr. R. R. Brunskill, Liverpool; Mr. J. S. Buck, Eaton Socon; Messrs. Brady and Martin, Newcastle-on-Tyne; Messrs. W. F. Brown and Co., Montreal; B. A. B., Lond.; Brading, Lond.; B. B., Lond.

C.—Mr. A. C. Champati, Patna City; Mr. A. Chawner, Clay Cross; Country, Lond.; Canonbury, Lond.; C. H., Birmingham; C. B., Lond.

D.—Mr. W. F. Dale, Welling; Mr. H. Downes, Burnham; Mr. M. O. Dee, Dungarvan; Mr. T. Dixon, Lond.; Delta, Lond.

E.—Dr. A. J. Edge, Maidenhead; East Suffolk Hospital, Ipswich, Sec. of; Examination, Lond.

F.—Mr. P. T. Finn, Swaffham; Mr. J. A. Ferris, Woodham Ferris; Felix, Lond.; F. G., Lond.

G.—Mr. E. H. Griffiths, Lampeter; Mr. G. E. Gratwicke, Exeter; G. S., Lond.

H.—Dr. G. S. Hart, Measham; Dr. J. Henderson, Drumahoe, Ireland; Mr. W. Heffer, Cambridge; Mr. W. A. Hardiker, Brymbo; Mr. R. H. Heptinstall, Methley; Miss Hill, Lond.; H. C. W., Lond.; Home, Lond.

J.—Dr. H. M. Jones, Lond.; Mr. G. M. Jones, Alton.

K.—Mrs. Kelly, Kingsdown, Ireland; Kensington, Lond.; Messrs. Kerin and Lynam, Lond.

L.—Dr. T. M. Legge, Oxford; Dr. V. De Laprade, Lyons; Mr. W. C. Luffman, Plumstead; Mr. R. H. Lucas, Busy St. Edmunds; Licentiate, Lond.; Lumbar Plexus, Lond.

M.—Dr. J. More, Rothwell; Dr. J. Matson, co. Donegal; Dr. R. C. Macdonald, Coppull; Dr. C. R. Marshall, Cambridge; Dr. F. Murchison, Isleworth; Mr. A. Mulliner, Northampton.

O.—Dr. W. B. Oliphant, Blackwall; Mr. W. T. Oliver, Titchfield; Orpheus, Lond.; Omega, Lond.; Ops, Lond.

P.—Dr. F. W. Pavy, Lond.; Messrs. W. Porteous and Co., Glasgow; P. C., Lond.

Q.—Q., Bradford.

R.—Sir H. B. Robertson, Corwen; Dr. T. Richards, Newbridge, Mon.; Mr. C. E. R. Randle, Plymouth; Mr. T. B. Rice, Newton Abbot; Royal College of Physicians, Dublin, Sec. of; Rus, Bedale.

S.—Dr. J. B. Spence, Burntwood; Mr. H. Smith, Lond.; Mr. F. W. Sears, Lond.; Mr. S. Suzuki, Hiroshima; Messrs. Slinger and Son, York; St. Mungo's College, Glasgow, Treasurer of; Surney, Lond.; Sphenoid, Lond.

T.—Mr. J. Thin, Edinburgh; Mr. A. Thompson, Boxford; Messrs. Thomson and Shephard, Lond.; Timelars, Lond.; Theta, Lond.; Thorax, Lond.

U.—Mr. J. Upping, Liverpool.

V.—Miss A. F. Vicary, Colombo, Ceylon; V. N., Lond.

W.—Dr. J. H. Waterhouse, Maltby Grange; Mr. E. Wood, Lond.

X.—X., Lond.

Z.—Zeta, Lond.

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Three Months	0 8 8

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Books and Publications	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6
First Page (under Contents) (Books only)	when space available Five Lines and under	0 5 0
	Every additional Line	0 1 0
Quarter Page		1 10 0
Half a Page		2 15 0
An Entire Page		5 5 0

Terms for Position Pages and Serial Insertions on application.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post Offices letters addressed to fictitious names or initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Terms for Serial Insertions may be obtained of the Manager, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière Asnieres, Paris.